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MONTHLY WEATHER REVIEW

MARCH 1946

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Contour lines and isotherms based on radiosonde observations at 0300 G.C.T. and winds based on pilot balloon observations at 1000 G.C.T.

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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR MARCH 1946

AEROLOGICAL OBSERVATIONS

[For description of change in Table 1 and charts, see REVIEW, January 1946, p. 6]

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1946*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Albany, N. Y. (1,006.2 mb.)				Albuquerque, N. Mex. (834.7 mb.)				Apalachicola, Fla. (1,017.0 mb.)				Atlanta, Ga. (982.3 mb.)				Big Spring, Tex. (924.5 mb.)				Bismarck, N. Dak. (952.7 mb.)				Boise, Idaho (913.7 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	93	5.4	67	31	1,620	9.7	35	31	5	16.3	84	31	300	13.8	69	31	774	13.7	39	31	905	2.1	77	31	868	6.8	61
1,000	31	143	(*)	....	31	86	(*)	....	31	149	17.0	76	31	148	(*)	....	31	104	(*)	....	31	108	(*)	....	31	117	(*)	....
950	31	564	5.0	61	31	528	(*)	....	31	585	15.8	65	31	585	14.2	61	31	542	(*)	....	31	526	(*)	....	31	551	(*)	....
900	31	1,002	3.5	56	31	984	(*)	....	31	1,043	12.9	63	31	1,037	11.2	61	31	1,000	14.1	37	31	965	2.8	68	31	992	7.5	55
850	31	1,464	1.3	56	31	1,467	(*)	....	31	1,522	10.6	53	31	1,512	8.3	57	31	1,480	11.5	33	31	1,426	1.8	64	31	1,461	4.6	53
800	31	1,950	−0.8	51	31	1,972	8.6	33	31	2,025	9.0	42	31	2,010	6.0	49	31	1,984	8.7	32	31	1,912	0.0	58	31	1,951	0.7	60
750	31	2,467	−3.1	51	31	2,501	4.5	35	31	2,559	6.5	37	31	2,543	3.8	36	31	2,519	5.5	33	31	2,431	−2.0	55	31	2,471	−3.1	64
700	31	3,007	−5.4	45	31	3,059	0.0	41	31	3,119	3.6	....	31	3,093	1.1	....	31	3,075	2.0	33	31	2,971	−5.9	54	31	3,009	−6.5	66
650	31	3,589	−8.5	41	31	3,644	−4.8	46	31	3,715	0.0	....	31	3,688	−2.3	....	31	3,668	−2.0	36	31	3,549	−9.5	54	31	3,589	−10.0	65
600	31	4,201	−12.1	....	31	4,272	−9.4	50	31	4,352	−3.8	....	30	4,313	−6.4	....	31	4,300	−6.4	35	31	4,163	−12.2	62	31	4,197	−14.0	69
550	31	4,861	−16.4	....	31	4,937	−13.9	50	31	5,029	−8.5	....	30	4,990	−10.7	....	31	4,974	−11.0	....	31	4,823	−18.2	65	31	4,855	−18.1	66
500	30	5,574	−21.3	....	31	5,656	−19.0	46	31	5,764	−13.4	....	30	5,714	−15.5	....	31	5,700	−16.1	....	31	5,525	−23.3	....	31	5,558	−22.8	....
450	30	6,350	−26.6	....	31	6,434	−24.6	....	31	6,561	−19.0	....	30	6,508	−21.0	....	30	6,483	−22.2	....	31	6,296	−28.9	....	31	6,329	−28.2	....
400	29	7,183	−32.8	....	29	7,287	−30.7	....	30	7,420	−25.4	....	30	7,360	−27.1	....	30	7,337	−28.5	....	31	7,120	−35.1	....	30	7,157	−34.3	....
350	29	8,109	−39.7	....	29	8,223	−37.8	....	30	8,375	−32.5	....	30	8,307	−34.6	....	30	8,280	−35.5	....	31	8,037	−42.4	....	29	8,073	−41.4	....
300	29	9,145	−47.1	....	29	9,267	−45.7	....	30	9,442	−40.6	....	30	9,366	−42.2	....	28	9,342	−42.5	....	30	9,064	−50.2	....	29	9,102	−48.9	....
250	29	10,330	−54.6	....	29	10,458	−53.8	....	29	10,661	−49.5	....	29	10,572	−50.4	....	25	10,567	−49.7	....	22	10,246	−56.2	....	28	10,275	−55.6	....
200	24	11,745	−58.2	....	25	11,873	−55.7	....	29	12,099	−56.1	....	27	12,002	−56.7	....	22	12,005	−54.5	....	14	11,622	−58.7	....	23	11,681	−55.3	....
175	22	12,587	−56.1	....	20	12,714	−54.2	....	29	12,942	−58.6	....	25	12,851	−57.0	....	19	12,848	−54.8	....	12	12,457	−56.9	....	20	12,539	−53.4	....
150	17	13,550	−54.7	....	16	13,692	−56.4	....	23	13,894	−60.7	....	21	13,824	−57.3	....	12	13,797	−56.8	....	10	13,426	−55.0	....	16	13,539	−53.4	....
125	16	14,707	−57.1	....	12	14,864	−60.4	....	21	15,017	−63.7	....	17	14,952	−60.1	....	5	14,878	−59.5	....	7	14,564	−54.7	....	8	14,708	−53.7	....
100	5	16,159	−60.4	....	....	....	....	....	12	16,354	−67.9	....	5	16,357	−64.7	....	....	....	....	....	....	....	....	....	....	....	....	....
80	....	....	....	....	....	....	....	....	6	17,661	−70.5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

	Brownsville, Tex. (1,013.0 mb.)				Buffalo, N. Y. (990.5 mb.)				Burrwood, La. (1,016.7 mb.)				Caribou, Maine (992.0 mb.)				Charleston, S. C. (1,016.5 mb.)				Ciudad Victoria, Mexico (973.1 mb.)				Clovis, N. Mex. (866.0 mb.)			
Surface	31	6	18.8	83	30	221	5.3	74	31	2	16.3	89	31	191	−2.4	79	31	14	14.6	78	30	335	24.4	44	31	1,306	9.2	37
1,000	31	117	19.4	78	30	141	(*)	....	31	143	17.1	80	31	125	(*)	....	31	153	16.0	71	30	94	(*)	....	31	85	(*)	....
950	31	563	18.7	60	30	567	6.3	64	31	584	15.1	68	31	538	−1.6	67	31	593	14.9	61	30	546	23.2	45	31	529	(*)	....
900	31	1,021	17.1	49	30	1,004	4.9	59	31	1,037	12.8	57	31	964	−3.2	69	31	1,044	12.2	59	30	1,013	20.1	47	31	983	(*)	....
850	31	1,508	16.4	33	30	1,468	2.5	57	31	1,515	11.1	42	31	1,414	−4.8	67	31	1,521	9.5	60	30	1,503	16.7	48	31	1,461	11.1	34
800	31	2,022	14.2	33	30	1,956	0.2	56	31	2,020	9.6	35	31	1,889	−6.9	58	31	2,022	7.2	53	30	2,017	13.9	47	31	1,964	8.3	35
750	31	2,566	11.5	28	30	2,477	−2.5	54	31	2,557	7.4	....	31	2,393	−9.1	61	31	2,558	4.7	45	30	2,562	11.5	43	31	2,496	4.4	38
700	31	3,136	8.0	27	30	3,016	−5.0	50	31	3,118	4.2	....	31	2,921	−11.7	54	31	3,110	1.8	36	30	3,133	8.7	34	31	3,050	0.4	38
650	31	3,744	3.8	30	30	3,602	−8.4	52	31	3,718	0.4	....	31	3,491	−14.1	52	31	3,705	−1.7	....	30	3,743	4.9	29	31	3,642	−3.7	40
600	31	4,387	−1.0	33	30	4,211	−12.2	51	31	4,353	−3.9	....	31	4,090	−17.3	49	31	4,337	−5.6	....	30	4,390	0.3	31	31	4,268	−8.3	41
550	31	5,073	−6.5	39	30	4,873	−16.3	47	31	5,035	−8.4	....	31	4,739	−21.2	....	31	5,013	−10.0	....	30	5,082	−4.4	32	31	4,937	−13.2	45
500	31	5,811	−12.1	41	30	5,582	−21.1	....	31	5,767	−13.5	....	31	5,434	−25.7	....	29	5,737	−14.6	....	30	5,825	−9.9	32	31	5,656	−17.8	....
450	31	6,612	−17.4	40	29	6,361	−26.3	....	31	6,566	−19.3	....	31	6,195	−30.7	....	28	6,534	−20.1	....	29	6,633	−15.5	36	31	6,441	−23.6	....
400	30	7,479	−23.9	....	29	7,195	−32.5	....	31	7,427	−25.6	....	31	7,017	−36.5	....	28	7,391	−26.2	....	29	7,507	−21.9	....	31	7,286	−29.9	....
350	30	8,438	−31.4	....	29	8,121	−39.5	....	30	8,378	−32.7	....	31	7,930	−42.7	....	27	8,345	−33.4	....	28	8,471	−29.4	....	30	8,232	−37.0	....
300	30	9,510	−39.6	....	27	9,160	−46.5	....	28	9,444	−40.7	....	31	8,956	−48.9	....	27	9,410	−41.1	....	28	9,555	−37.8	....	30	9,280	−44.5	....
250	30	10,732	−48.7	....	26	10,352	−53.0	....	28	10,661	−49.6	....	30	10,138	−53.9	....	24	10,627	−48.8	....	28	10,786	−46.8	....	30	10,478	−52.4	....
200	30	12,170	−56.5	....	24	11,781	−57.8	....	21	12,103	−56.2	....	26	11,568	−53.5	....	21	12,062	−54.7	....	28	12,253	−54.9	....	28	11,902	−56.8	....
175	27	13,006	−59.7	....	20	12,626	−55.3	....	21	12,945	−59.0	....	22	12,434	−52.9	....	19	12,912	−56.5	....	26	13,077	−59.2	....	24	12,741	−55.7	....
150	21	13,963	−62.3	....	14	13,610	−54.7	....	19	13,910	−61.3	....	21	13,430	−54.3	....	17	13,882	−57.9	....	22	14,029	−62.1	....	24	13,720	−56.8	....
125	16	15,069	−64.8	....	12	14,768	−56.2	....	10	15,022	−64.7	....	15	14,594	−54.5	....	15	15,010	−61.3	....	17	15,160	−66.0	....	17	14,839	−59.6	....
100	8	16,402	−68.9	....	7	16,219	−59.1	....	....	....	....	....	10	16,022	−56.4	....	7	16,312	−63.1	....	10	16,498	−70.9	....	7	16,242	−62.4	....

See footnotes at end of table.

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1946*—Continued

STATIONS AND MEAN SURFACE PRESSURES—Continued

Standard pressure surface (mb.)	Columbia, Mo. (984.6 mb.)				Denver, Colo. (833.3 mb.)				Dodge City, Kans. (920.9 mb.)				El Paso, Tex. (877.8 mb.)				Ely, Nev. (805.5 mb.)				Fort Worth, Tex. (988.8 mb.)				Glasgow, Mont. (935.8 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	234	11.9	69	31	1,616	6.7	41	30	787	8.9	62	31	1,195	14.5	25	31	1,908	1.8	66	30	211	15.5	60	30	648	1.6	76
1,000	31	102	(*)	----	31	82	(*)	----	30	92	(*)	----	31	94	(*)	----	31	122	(*)	----	30	114	(*)	----	30	100	(*)	----
950	31	536	11.2	65	31	521	(*)	----	30	528	(*)	----	31	547	(*)	----	31	556	(*)	----	30	554	15.5	55	30	530	(*)	----
900	31	982	8.8	65	31	976	(*)	----	30	977	10.2	55	31	1,009	(*)	----	31	1,004	(*)	----	30	1,007	13.2	55	30	965	4.4	57
850	31	1,454	6.3	62	31	1,450	(*)	----	30	1,450	8.3	50	31	1,485	13.9	26	31	1,469	(*)	----	30	1,485	10.4	51	30	1,432	1.4	58
800	31	1,949	3.7	60	31	1,951	6.4	38	30	1,949	6.2	44	31	1,992	10.0	29	31	1,965	(*)	----	30	1,987	8.1	41	30	1,913	−1.0	53
750	31	2,475	0.7	52	31	2,477	2.6	39	30	2,480	3.3	41	31	2,530	5.7	33	31	2,491	0.0	54	30	2,520	5.5	37	30	2,429	−3.9	53
700	31	3,021	−2.5	52	31	3,020	−1.4	43	30	3,031	−0.4	37	31	3,084	1.5	39	31	3,033	−4.0	57	30	3,078	2.3	38	30	2,967	−7.2	55
650	31	3,612	−6.2	51	31	3,616	−6.1	48	30	3,623	−4.3	35	31	3,681	−2.5	35	31	3,617	−7.6	53	30	3,671	−2.6	38	30	3,544	−10.8	52
600	30	4,227	−10.0	45	31	4,236	−10.9	52	30	4,245	−8.6	37	31	4,306	−7.1	37	31	4,232	−11.6	53	30	4,304	−5.9	41	30	4,152	−14.8	53
550	30	4,896	−14.5	43	31	4,898	−15.7	53	30	4,913	−13.5	----	31	4,980	−11.8	39	31	4,893	−16.1	55	30	4,979	−10.2	37	30	4,804	−19.2	53
500	30	5,607	−19.4	----	31	5,611	−20.9	53	30	5,631	−19.0	----	31	5,702	−17.1	39	31	5,604	−20.7	45	30	5,706	−15.7	----	29	5,514	−23.6	----
450	30	6,386	−25.3	----	31	6,387	−26.7	----	30	6,413	−24.9	----	31	6,490	−22.9	----	31	6,382	−26.1	----	29	6,493	−21.6	----	28	6,281	−29.4	----
400	29	7,222	−31.5	----	29	7,227	−33.1	----	29	7,252	−31.6	----	31	7,336	−29.2	----	31	7,217	−32.5	----	29	7,348	−27.8	----	28	7,106	−35.8	----
350	29	8,153	−38.3	----	29	8,152	−40.3	----	30	8,184	−38.3	----	31	8,277	−35.8	----	31	8,145	−39.4	----	29	8,293	−34.8	----	27	8,022	−42.9	----
300	29	9,197	−45.4	----	28	9,189	−48.0	----	30	9,227	−45.4	----	31	9,332	−43.0	----	31	9,182	−47.2	----	28	9,348	−42.6	----	23	9,024	−50.6	----
250	28	10,390	−52.1	----	28	10,370	−55.1	----	30	10,423	−52.8	----	29	10,540	−51.0	----	30	10,359	−54.9	----	26	10,573	−50.6	----	22	10,201	−55.7	----
200	22	11,821	−55.4	----	18	11,776	−55.9	----	25	11,867	−55.8	----	25	11,975	−55.6	----	28	11,766	−57.3	----	24	12,015	−54.2	----	16	11,604	−53.2	----
175	12	12,640	−52.9	----	16	12,616	−54.2	----	23	12,730	−55.4	----	22	12,816	−55.8	----	21	12,618	−54.3	----	21	12,841	−54.7	----	15	12,461	−51.4	----
150	8	13,592	−52.8	----	14	13,596	−54.5	----	21	13,718	−56.4	----	22	13,794	−57.6	----	17	13,611	−54.3	----	18	13,852	−57.4	----	11	13,483	−51.3	----
125	5	14,746	−56.2	----	7	14,745	−56.9	----	17	14,861	−57.4	----	17	14,921	−60.5	----	8	14,799	−56.6	----	12	15,030	−60.3	----	7	14,623	−51.6	----
100	----	----	----	----	----	----	----	----	10	16,273	−59.4	----	7	16,309	−63.8	----	----	----	----	----	6	16,293	−65.4	----	----	----	----	----

Standard pressure surface (mb.)	Grand Junction, Colo.[1] (855.2 mb.)				Great Falls, Mont. (881.8 mb.)				Green Bay, Wis. (992.7 mb.)				Greensboro, N. C. (986.1 mb.)				Hatteras, N. C. (1,018.0 mb.)				Havana, Cuba[2] (---- mb.)				Huntington, W. Va. (995.6 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	26	1,414	7.0	47	31	1,128	4.6	52	31	182	3.0	77	31	273	10.8	73	30	3	13.2	87	----	----	----	----	30	172	8.6	77
1,000	29	102	(*)	----	31	86	(*)	----	31	121	(*)	----	31	155	(*)	----	30	154	13.9	76	----	----	----	----	30	134	(*)	----
950	29	544	(*)	----	31	516	(*)	----	31	541	5.1	62	31	588	11.4	66	30	583	12.6	69	----	----	----	----	30	564	11.2	59
900	29	997	(*)	----	31	963	(*)	----	31	980	4.0	57	31	1,035	8.9	64	29	1,038	10.5	66	----	----	----	----	30	1,012	8.7	62
850	29	1,466	(*)	----	31	1,428	4.3	47	31	1,444	2.4	56	31	1,506	6.3	61	29	1,512	7.9	60	----	----	----	----	30	1,483	5.6	67
800	29	1,964	5.2	43	31	1,918	0.6	50	31	1,932	0.8	50	31	2,002	4.2	55	29	2,011	5.9	58	----	----	----	----	30	1,976	2.7	63
750	29	2,491	0.9	49	31	2,435	−3.2	55	31	2,454	−1.7	49	31	2,528	1.6	51	29	2,539	3.5	54	----	----	----	----	30	2,500	0.2	49
700	29	3,037	−3.3	54	31	2,975	−7.0	61	29	2,996	−4.7	46	31	3,077	−1.5	47	29	3,093	0.6	57	----	----	----	----	30	3,047	−2.6	40
650	29	3,622	−7.7	56	31	3,554	−11.0	65	29	3,579	−8.3	43	31	3,665	−4.7	45	28	3,688	−2.4	----	----	----	----	----	29	3,635	−6.1	----
600	29	4,236	−11.9	56	30	4,159	−14.7	61	29	4,192	−12.3	43	31	4,288	−8.2	43	28	4,318	−6.2	----	----	----	----	----	29	4,255	−9.7	----
550	28	4,855	−16.6	52	30	4,813	−19.4	60	27	4,851	−16.8	----	31	4,958	−13.0	37	27	4,998	−10.5	----	----	----	----	----	29	4,922	−13.9	----
500	28	5,602	−21.8	----	30	5,513	−24.7	----	27	5,558	−22.0	----	31	5,677	−17.7	----	27	5,726	−15.3	----	----	----	----	----	29	5,639	−18.9	----
450	27	6,370	−27.6	----	30	6,277	−30.4	----	27	6,331	−27.7	----	31	6,462	−23.3	----	24	6,518	−20.5	----	----	----	----	----	29	6,417	−24.5	----
400	27	7,201	−34.1	----	30	7,098	−36.6	----	27	7,161	−34.1	----	31	7,308	−29.6	----	24	7,374	−26.6	----	----	----	----	----	29	7,265	−30.6	----
350	27	8,121	−41.5	----	30	8,008	−44.0	----	26	8,079	−41.2	----	30	8,245	−36.7	----	24	8,323	−33.8	----	----	----	----	----	29	8,200	−37.2	----
300	27	9,148	−49.4	----	30	9,026	−51.0	----	26	9,109	−48.6	----	30	9,294	−44.2	----	22	9,402	−41.4	----	----	----	----	----	28	9,243	−44.4	----
250	21	10,357	−55.2	----	29	10,198	−56.8	----	22	10,300	−55.0	----	29	10,496	−51.8	----	20	10,626	−49.7	----	----	----	----	----	28	10,444	−51.3	----
200	15	11,765	−57.0	----	21	11,617	−55.1	----	20	11,725	−57.9	----	24	11,930	−56.1	----	17	12,057	−55.9	----	----	----	----	----	22	11,883	−55.4	----
175	13	12,625	−54.8	----	18	12,478	−53.7	----	19	12,578	−54.9	----	19	12,700	−57.4	----	10	12,889	−55.0	----	----	----	----	----	20	12,737	−54.3	----
150	13	13,609	−54.9	----	16	13,482	−52.5	----	19	13,564	−54.7	----	15	13,759	−58.1	----	7	13,884	−56.0	----	----	----	----	----	18	13,722	−55.6	----
125	5	14,765	−54.7	----	8	14,667	−53.2	----	18	14,732	−56.6	----	9	14,910	−61.1	----	----	----	----	----	----	----	----	----	12	14,858	−58.1	----
100	----	----	----	----	----	----	----	----	13	16,143	−59.1	----	----	----	----	----	----	----	----	----	----	----	----	----	6	16,323	−61.0	----
80	----	----	----	----	----	----	----	----	8	17,536	−60.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	International Falls, Minn. (972.6 mb.)				Joliet, Ill. (992.8 mb.)				Lake Charles, La. (1,015.4 mb.)				Lander, Wyo. (832.1 mb.)				Las Vegas, Nev. (945.9 mb.)				Little Rock, Ark. (1,004.9 mb.)				Louisville, Ky. (995.4 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	343	0.7	68	30	178	6.6	82	31	5	15.8	83	30	1,632	3.1	59	31	574	14.9	27	31	79	14.1	69	30	165	12.0	70
1,000	31	117	(*)	----	30	118	(*)	----	31	135	16.5	74	30	108	(*)	----	31	98	(*)	----	31	120	(*)	----	30	125	(*)	----
950	31	531	1.1	62	30	543	7.7	72	31	576	15.3	60	30	540	(*)	----	31	541	(*)	----	31	557	13.2	62	30	555	12.4	61
900	31	965	−0.1	61	30	986	6.4	66	31	1,028	12.6	57	30	988	(*)	----	31	995	14.3	26	31	1,006	10.3	63	30	1,008	9.4	63
850	31	1,422	−1.2	53	30	1,454	4.7	60	31	1,506	10.8	46	30	1,456	(*)	----	31	1,473	10.4	29	31	1,480	8.0	58	30	1,479	6.2	65
800	31	1,904	−2.8	54	30	1,946	2.6	58	31	2,010	9.2	35	30	1,952	3.6	49	31	1,974	6.2	34	31	1,978	5.5	53	30	1,974	3.7	62
750	31	2,422	−5.2	55	30	2,470	−0.1	55	31	2,582	7.3	28	30	2,472	−0.1	49	31	2,502	2.2	39	31	2,508	2.8	47	30	2,495	1.0	60
700	31	2,953	−8.0	58	30	3,016	−3.3	55	31	3,107	4.1	28	30	3,020	−4.0	53	31	3,052	−1.9	43	31	3,058	0.2	40	30	3,047	−2.1	57
650	31	3,532	−11.4	58	29	3,601	−6.9	58	30	3,712	0.7	----	30	3,601	−8.2	55	31	3,639	−5.9	45	31	3,652	−3.1	40	29	3,631	−5.6	56
600	31	4,134	−15.2	59	28	4,215	−10.9	56	30	4,347	−3.8	----	30	4,217	−12.6	55	30	4,261	−9.8	45	31	4,278	−6.9	36	29	4,256	−9.4	51
550	31	4,789	−19.3	54	28	4,880	−15.2	53	29	5,029	−8.5	----	30	4,875	−17.1	48	29	4,929	−13.9	----	30	4,955	−11.3	----	29	4,922	−13.7	48
500	30	5,495	−23.6	----	28	5,592	−20.2	54	28	5,763	−13.7	----	30	5,582	−22.4	----	29	5,644	−18.9	----	29	5,675	−16.6	----	29	5,641	−19.0	48
450	30	6,266	−28.9	----	28	6,372	−25.7	----	28	6,561	−19.6	----	30	6,356	−28.2	----	29	6,422	−24.8	----	29	6,465	−22.2	----	29	6,416	−24.7	----
400	30	7,089	−35.2	----	27	7,206	−31.9	----	27	7,423	−25.7	----	30	7,183	−34.1	----	29	7,266	−31.3	----	29	7,313	−28.3	----	29	7,263	−31.1	----
350	28	8,010	−42.4	----	27	8,136	−38.9	----	26	8,377	−32.8	----	30	8,104	−41.3	----	29	8,197	−38.3	----	29	8,256	−34.8	----	29	8,197	−37.7	----
300	28	9,034	−49.9	----	27	9,177	−46.3	----	26	9,444	−41.3	----	30	9,132	−48.9	----	29	9,240	−45.8	----	29	9,315	−42.3	----	28	9,249	−44.5	----
250	24	10,204	−56.0	----	27	10,370	−53.4	----	24	10,661	−49.7	----	30	10,308	−55.8	----	26	10,433	−53.5	----	27	10,528	−50.1	----	26	10,456	−51.5	----
200	22	11,624	−56.2	----	25	11,785	−56.0	----	23	12,104	−55.3	----	28	11,716	−57.0	----	24	11,845	−56.4	----	26	11,968	−54.8	----	19	11,895	−55.8	----
175	21	12,472	−53.6	----	24	12,631	−54.6	----	19	12,941	−57.4	----	22	12,592	−54.6	----	23	12,699	−54.8	----	26	12,819	−55.6	----	15	12,750	−55.3	----
150	20	13,475	−53.1	----	22	13,617	−55.0	----	19	13,911	−59.8	----	18	13,606	−53.4	----	21	13,680	−55.8	----	22	13,815	−57.1	----	11	13,718	−55.9	----
125	13	14,604	−53.5	----	18	14,779	−56.8	----	17	15,047	−64.8	----	14	14,774	−55.6	----	18	14,824	−58.3	----	16	14,949	−59.6	----	----	----	----	----
100	6	16,091	−55.6	----	9	16,203	−58.4	----	10	16,397	−69.6	----	9	16,175	−58.3	----	12	16,206	−59.6	----	9	16,342	−62.8	----	----	----	----	----
80	----	----	----	----	----	----	----	----	----	----	----	----	5	17,522	−59.5	----	5	17,398	−60.5	----	----	----	----	----	----	----	----	----

See footnote at end of table.

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1946*—Continued

STATIONS AND MEAN SURFACE PRESSURES—Continued

Standard pressure surface (mb.)	Mazatlan, Mexico (1,004.4 mb.)				Medford, Oreg. (968.6 mb.)				Merida, Mexico (1,010.3 mb.)				Miami, Fla. (1,018.1 mb.)				Nashville, Tenn. (994.4 mb.)				North Platte, Nebr. (913.5 mb.)				Oakland, Calif. (1,016.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	79	21.7	76	31	401	8.4	72	31	27	26.1	63	31	4	20.5	81	31	180	14.3	67	31	849	6.0	70	30	2	12.0	71
1,000	31	117	21.4	68	31	137	(*)	----	31	117	25.1	64	31	159	20.1	78	31	130	(*)	----	31	95	(*)	----	30	136	11.7	70
950	31	570	22.5	33	31	564	8.3	65	31	566	21.9	65	31	607	17.3	76	31	571	13.1	63	31	529	(*)	----	30	568	9.2	67
900	31	1,032	21.2	29	31	1,006	5.1	70	31	1,034	19.0	65	31	1,061	14.2	75	31	1,018	10.1	65	31	971	7.4	62	30	1,010	6.8	59
850	31	1,523	18.4	23	31	1,469	1.6	77	31	1,523	15.7	65	31	1,542	12.5	59	31	1,490	7.1	65	31	1,441	6.1	53	30	1,477	4.6	51
800	31	2,039	15.3	22	31	1,955	−1.5	80	31	2,036	13.2	59	31	2,049	10.6	46	31	1,987	4.6	59	31	1,936	3.8	49	30	1,968	2.5	55
750	31	2,588	11.8	23	31	2,471	−4.3	77	31	2,582	10.9	42	31	2,589	8.1	37	31	2,517	1.6	55	30	2,464	1.2	49	30	2,492	−0.1	49
700	31	3,155	8.0	33	31	3,008	−7.4	72	31	3,149	7.7	33	31	3,151	5.2	----	31	3,064	−1.1	49	30	3,012	−2.1	43	30	3,037	−3.2	47
650	31	3,766	3.9	25	31	3,585	−10.4	67	31	3,758	4.6	----	30	3,755	1.7	----	31	3,655	−4.5	48	30	3,602	−5.9	42	30	3,623	−6.9	47
600	31	4,406	−0.7	----	31	4,193	−14.1	65	31	4,405	0.6	----	30	4,394	−2.3	----	31	4,277	−8.0	47	30	4,218	−10.3	44	30	4,241	−10.6	44
550	31	5,093	−5.5	----	31	4,848	−18.1	60	30	5,096	−3.7	----	30	5,079	−6.8	----	30	4,949	−12.6	45	30	4,885	−15.2	48	30	4,906	−14.8	44
500	31	5,835	−10.9	----	31	5,554	−22.8	----	30	5,845	−8.9	----	30	5,816	−11.7	----	30	5,668	−17.8	----	30	5,595	−20.4	51	30	5,621	−19.7	47
450	30	6,645	−16.7	----	31	6,322	−28.3	----	30	6,657	−14.9	----	30	6,622	−17.2	----	30	6,451	−23.3	----	30	6,374	−26.1	----	29	6,399	−25.5	----
400	30	7,511	−23.1	----	30	7,155	−34.3	----	30	7,534	−22.0	----	30	7,489	−23.4	----	30	7,299	−29.4	----	30	7,207	−32.7	----	28	7,250	−31.7	----
350	30	8,473	−30.9	----	30	8,075	−41.4	----	29	8,502	−29.9	----	30	8,450	−31.1	----	30	8,238	−36.1	----	28	8,140	−39.8	----	27	8,187	−39.1	----
300	30	9,548	−39.2	----	30	9,103	−48.6	----	29	9,581	−38.6	----	29	9,523	−39.7	----	29	9,289	−43.8	----	28	9,174	−48.0	----	25	9,240	−46.2	----
250	26	10,781	−47.9	----	30	10,283	−55.2	----	28	10,811	−47.5	----	28	10,742	−48.4	----	29	10,492	−51.0	----	28	10,357	−54.4	----	24	10,429	−53.2	----
200	21	12,222	−57.9	----	27	11,703	−58.9	----	22	12,266	−56.1	----	28	12,186	−56.0	----	27	11,926	−55.2	----	22	11,808	−55.8	----	24	11,847	−57.4	----
175	13	13,043	−62.5	----	20	12,541	−56.3	----	18	13,107	−60.8	----	27	13,030	−58.6	----	25	12,775	−55.2	----	16	12,698	−54.8	----	22	12,686	−55.5	----
150	8	14,000	−64.5	----	16	13,503	−54.7	----	10	14,072	−64.7	----	24	13,980	−62.8	----	20	13,753	−56.1	----	10	13,663	−54.0	----	16	13,670	−55.0	----
125	----	----	----	----	9	14,628	−54.6	----	----	----	----	----	16	15,093	−66.4	----	11	14,888	−59.4	----	9	14,823	−55.5	----	8	14,816	−56.0	----
100	----	----	----	----	----	----	----	----	----	----	----	----	12	16,435	−70.8	----	7	16,271	−62.8	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Ogden, Utah (862.2 mb.)				Oklahoma City, Okla. (966.9 mb.)				Omaha, Nebr. (975.5 mb.)				Phoenix, Ariz. (973.2 mb.)				Pittsburgh, Pa. (971.4 mb.)				Portland, Maine (1,014.5 mb.)				Rapid City, S. Dak. (901.5 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	1,355	5.1	62	31	391	12.2	66	31	308	9.8	74	31	339	16.6	36	31	382	9.6	62	31	20	2.9	75	30	981	4.2	65
1,000	31	120	(*)	----	31	106	(*)	----	31	100	(*)	----	31	99	(*)	----	31	138	(*)	----	31	135	4.5	69	30	103	(*)	----
950	31	554	(*)	----	31	541	12.7	60	31	532	9.6	70	31	543	19.5	26	31	570	9.9	58	31	557	4.5	59	30	535	(*)	----
900	31	1,005	(*)	----	31	990	10.7	58	31	976	8.1	69	31	1,001	15.9	26	31	1,014	7.6	58	31	993	2.5	59	30	978	(*)	----
850	31	1,471	5.6	53	31	1,465	8.7	54	31	1,447	6.2	65	31	1,483	11.9	29	31	1,483	5.1	58	30	1,455	0.3	59	30	1,442	3.9	58
800	31	1,964	2.6	52	31	1,964	6.3	50	31	1,941	3.5	60	31	1,985	7.6	34	31	1,976	2.6	56	30	1,939	−1.9	58	30	1,933	1.7	58
750	31	2,486	−1.4	57	31	2,495	3.5	46	31	2,464	0.5	56	31	2,516	3.4	38	31	2,498	0.0	50	30	2,456	−3.8	56	30	2,453	−1.4	57
700	31	3,028	−5.2	60	31	3,047	0.3	42	31	3,013	−3.0	53	31	3,068	−0.6	36	31	3,045	−2.7	48	30	2,993	−6.5	----	30	2,997	−4.6	57
650	31	3,608	−9.0	62	31	3,641	−3.3	41	31	3,598	−6.8	49	31	3,662	−4.2	36	31	3,631	−6.2	48	29	3,574	−9.4	----	30	3,581	−8.0	54
600	31	4,221	−13.2	62	31	4,266	−7.5	43	31	4,216	−10.6	44	31	4,284	−8.0	33	31	4,251	−10.2	45	28	4,186	−12.5	----	30	4,193	−12.3	56
550	31	4,879	−17.8	58	31	4,940	−12.3	43	29	4,884	−14.8	40	31	4,954	−12.7	33	31	4,917	−14.6	41	27	4,846	−16.8	----	30	4,855	−16.6	53
500	31	5,583	−23.0	----	28	5,671	−17.1	41	29	5,599	−20.1	----	30	5,677	−18.2	----	31	5,630	−19.8	----	26	5,548	−21.9	----	29	5,558	−21.9	----
450	31	6,352	−28.4	----	28	6,460	−22.4	----	29	6,374	−25.7	----	29	6,457	−23.9	----	29	6,415	−24.9	----	26	6,322	−27.6	----	29	6,334	−27.3	----
400	31	7,181	−34.3	----	28	7,308	−28.6	----	29	7,215	−32.1	----	28	7,309	−30.4	----	29	7,257	−31.0	----	26	7,152	−33.6	----	29	7,160	−33.9	----
350	31	8,102	−40.8	----	27	8,252	−35.6	----	29	8,143	−39.1	----	28	8,245	−37.3	----	28	8,187	−37.8	----	26	8,075	−40.2	----	29	8,081	−41.4	----
300	30	9,133	−48.1	----	26	9,301	−43.5	----	28	9,182	−46.8	----	28	9,292	−44.6	----	28	9,232	−45.3	----	25	9,114	−47.0	----	29	9,109	−49.5	----
250	30	10,314	−55.4	----	26	10,505	−51.2	----	28	10,372	−53.3	----	27	10,489	−52.6	----	27	10,426	−52.2	----	23	10,301	−53.9	----	28	10,295	−55.1	----
200	29	11,722	−56.6	----	20	11,938	−55.1	----	24	11,809	−56.1	----	21	11,923	−58.1	----	26	11,847	−56.4	----	20	11,699	−56.3	----	26	11,720	−57.0	----
175	26	12,566	−54.5	----	17	12,777	−54.3	----	22	12,665	−55.3	----	17	12,752	−56.1	----	24	12,699	−56.4	----	17	12,541	−54.1	----	22	12,560	−53.8	----
150	24	13,559	−54.9	----	16	13,758	−55.8	----	17	13,647	−54.0	----	11	13,729	−57.1	----	20	13,666	−55.6	----	16	13,525	−54.6	----	20	13,563	−53.2	----
125	17	14,738	−56.9	----	10	14,906	−58.3	----	15	14,810	−56.0	----	8	14,888	−59.9	----	14	14,853	−57.9	----	12	14,674	−56.1	----	17	14,738	−55.5	----
100	10	16,163	−58.0	----	7	16,304	−59.8	----	8	16,214	−59.4	----	----	----	----	----	5	16,273	−61.0	----	6	16,059	−57.8	----	5	16,206	−55.3	----
80	----	----	----	----	----	----	----	----	5	17,594	−61.3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	St. Paul, Minn. (986.9 mb.)				San Antonio, Tex. (986.4 mb.)				San Juan, P. R. (1,016.0 mb.)				Santa Maria, Calif. (1,007.6 mb.)				Sault Ste. Marie, Mich. (989.2 mb.)				Spokane, Wash. (942.9 mb.)				Swan Island, W. I. (1,014.0 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	225	5.2	70	30	240	16.4	61	31	15	23.8	78	31	71	10.8	79	31	221	0.6	76	31	598	5.5	76	31	10	24.5	79
1,000	31	116	(*)	----	30	121	(*)	----	31	154	22.7	78	31	134	10.7	77	31	133	(*)	----	31	113	(*)	----	31	132	23.7	80
950	31	543	4.9	64	30	561	17.5	49	31	599	19.3	80	31	567	10.4	63	31	553	2.1	61	31	537	(*)	----	31	581	20.4	81
900	31	977	4.0	61	30	1,020	15.2	48	31	1,062	16.1	78	31	1,011	8.3	60	31	983	1.2	55	31	978	3.8	71	31	1,045	17.8	74
850	31	1,441	3.0	56	30	1,502	12.8	44	31	1,547	13.2	72	31	1,481	5.4	59	31	1,441	−0.5	56	31	1,439	−0.4	74	31	1,532	14.7	69
800	31	1,930	1.3	55	30	2,009	10.7	34	30	2,055	11.2	58	31	1,974	3.4	47	31	1,924	−1.9	52	31	1,923	−3.0	79	31	2,043	12.3	57
750	31	2,454	−1.5	56	30	2,546	8.4	35	30	2,598	9.1	41	31	2,502	1.4	41	31	2,440	−3.9	48	31	2,433	−6.3	76	31	2,590	10.7	40
700	31	2,995	−4.7	56	30	3,112	5.6	31	30	3,161	7.4	----	31	3,048	−1.9	35	31	2,977	−6.4	47	31	2,967	−9.5	72	31	3,155	8.4	----
650	31	3,581	−8.4	54	29	3,714	1.5	32	30	3,770	4.2	----	30	3,639	−5.8	36	31	3,560	−9.9	50	31	3,541	−12.7	67	31	3,768	5.2	----
600	31	4,191	−12.3	48	28	4,352	−2.9	----	30	4,414	0.8	----	30	4,256	−9.9	----	31	4,165	−13.4	53	30	4,141	−16.5	60	31	4,413	1.5	----
550	31	4,854	−16.8	47	27	5,037	−7.8	----	30	5,107	−3.3	----	29	4,921	−14.8	----	31	4,825	−17.9	53	30	4,791	−20.8	67	31	5,108	−2.7	----
500	31	5,559	−21.9	----	27	5,768	−13.2	----	30	5,853	−8.3	----	28	5,630	−19.8	----	31	5,527	−22.6	----	30	5,488	−25.6	----	31	5,858	−7.6	----
450	31	6,334	−27.4	----	27	6,569	−18.7	----	30	6,667	−14.1	----	27	6,419	−25.2	----	30	6,306	−27.7	----	30	6,251	−31.2	----	31	6,678	−13.5	----
400	30	7,165	−33.3	----	27	7,429	−24.7	----	30	7,545	−20.8	----	27	7,257	−31.7	----	30	7,135	−33.7	----	30	7,069	−37.2	----	31	7,554	−20.3	----
350	30	8,089	−40.5	----	24	8,386	−31.7	----	30	8,518	−27.5	----	27	8,189	−38.6	----	29	8,063	−40.6	----	30	7,978	−43.5	----	31	8,527	−28.2	----
300	28	9,112	−48.6	----	24	9,452	−39.1	----	29	9,610	−34.8	----	26	9,236	−45.8	----	28	9,094	−48.4	----	28	8,999	−50.3	----	31	9,613	−36.6	----
250	28	10,291	−54.7	----	23	10,671	−47.5	----	29	10,859	−43.9	----	21	10,437	−53.9	----	27	10,280	−55.0	----	28	10,173	−55.9	----	28	10,844	−45.4	----
200	28	11,712	−56.0	----	21	12,124	−53.8	----	28	12,319	−55.0	----	11	11,809	−56.8	----	24	11,724	−57.6	----	21	11,571	−55.2	----	28	12,301	−54.9	----
175	23	12,574	−53.7	----	20	12,982	−54.8	----	27	13,161	−60.3	----	6	12,623	−53.7	----	16	12,582	−54.4	----	22	12,447	−53.1	----	26	13,144	−60.2	----
150	21	13,574	−52.4	----	18	13,953	−56.8	----	24	14,110	−65.5	----	5	13,636	−54.8	----	14	13,581	−52.9	----	20	13,431	−52.7	----	18	14,094	−65.7	----
125	16	14,732	−54.0	----	12	15,096	−60.0	----	10	15,213	−70.2	----	----	----	----	----	13	14,758	−55.0	----	16	14,621	−52.6	----	11	15,198	−70.2	----
100	11	16,156	−56.1	----	----	----	----	----	----	----	----	----	----	----	----	----	8	16,206	−58.3	----	8	16,054	−53.4	----	----	----	----	----
80	8	17,605	−59.0	----	----	----	----	----	----	----	----	----	----	----	----	----	5	17,635	−59.5	----	----	----	----	----	----	----	----	----

See footnote at end of table.

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1946*—Continued

STATIONS AND MEAN SURFACE PRESSURES—Continued

Standard pressure surface (mb.)	Tacubaya, Mexico (773.2 mb.)				Tampa, Fla. (1,018.2 mb.)				Tatoosh Island, Wash. (1,010.1 mb.)				Toledo, Ohio (992.5 mb.)				Washington, D. C. (1,015.5 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	2,306	17.9	39	31	3	18.5	82	31	31	6.8	84	31	101	6.8	76	31	25	10.7	64
1,000	31	37	(*)	----	31	157	18.3	77	31	113	6.1	84	31	128	(*)	----	31	153	10.9	69
950	31	505	(*)	----	31	597	16.4	69	31	533	2.8	85	31	556	8.3	64	31	583	9.4	56
900	31	980	(*)	----	31	1,055	13.6	68	31	967	−0.3	87	31	997	6.6	61	31	1,027	7.2	60
850	31	1,482	(*)	----	31	1,535	11.0	60	31	1,422	−3.2	84	31	1,465	4.4	61	31	1,496	5.2	57
800	31	2,014	(*)	----	31	2,040	9.8	41	31	1,899	−5.8	70	31	1,957	2.0	60	31	1,989	3.3	54
750	31	2,568	15.8	39	31	2,578	7.5	----	31	2,408	−8.4	65	31	2,480	−0.7	57	30	2,517	0.7	48
700	31	3,147	11.2	42	31	3,138	4.7	----	31	2,934	−11.2	65	31	3,024	−3.5	53	29	3,062	−2.5	47
650	31	3,762	6.2	49	31	3,742	0.9	----	31	3,507	−14.0	64	30	3,616	−6.6	48	29	3,650	−5.9	----
600	31	4,411	1.1	52	31	4,375	−3.2	----	31	4,103	−17.5	65	30	4,233	−10.1	44	29	4,270	−9.7	----
550	31	5,105	−3.0	48	31	5,056	−7.7	----	29	4,750	−21.9	----	30	4,899	−14.7	42	29	4,938	−14.2	----
500	30	5,852	−9.1	44	31	5,792	−13.0	----	29	5,445	−26.2	----	30	5,613	−19.6	----	29	5,652	−19.1	----
450	29	6,667	−14.9	----	31	6,592	−18.7	----	29	6,204	−31.1	----	30	6,363	−25.4	----	29	6,429	−24.8	----
400	29	7,542	−21.1	----	31	7,454	−25.1	----	29	7,026	−36.9	----	30	7,231	−31.9	----	29	7,274	−30.8	----
350	28	8,513	−28.7	----	30	8,407	−32.6	----	28	7,944	−43.2	----	30	8,161	−39.0	----	29	8,209	−37.4	----
300	28	9,596	−37.5	----	30	9,474	−40.7	----	26	8,974	−49.4	----	29	9,207	−46.5	----	28	9,253	−45.4	----
250	26	10,830	−47.1	----	30	10,691	−49.4	----	24	10,151	−53.4	----	27	10,397	−53.6	----	27	10,450	−52.6	----
200	23	12,277	−57.1	----	30	12,131	−56.1	----	19	11,569	−53.0	----	26	11,824	−56.9	----	21	11,873	−57.3	----
175	19	13,119	−61.3	----	30	12,972	−59.5	----	16	12,416	−49.7	----	22	12,659	−55.5	----	16	12,699	−58.0	----
150	14	14,056	−66.2	----	28	13,925	−62.2	----	12	13,414	−49.6	----	18	13,635	−54.5	----	14	13,686	−57.8	----
125	----	----	----	----	21	15,043	−66.1	----	8	14,599	−49.3	----	11	14,806	−56.9	----	10	14,800	−58.9	----
100	----	----	----	----	14	16,377	−70.6	----	----	----	----	----	5	16,221	−61.4	----	6	16,163	−60.8	----

[1] Surface data for old location only, 1,414 meters. Upper levels for old and new location, 1,474 meters.

[2] Data not yet received.

*Temperature and relative humidity data for this level are not available or are available only for certain days. See note entitled "Change in Summarization of Radiosonde Data," p. 6, in the January 1946 issue of the MONTHLY WEATHER REVIEW.

NOTE.—All observations scheduled between 0300 and 0500, G. C. T. except at Mazatlan and Merida, where they are taken near 0200, G. C. T.

"Number of observations" refers to those of dynamic height only. (In a few cases temperature or humidity data may be missing for one or more standard pressure surfaces of some observations.) Relative humidity data are not published for standard pressur surfaces having a corresponding mean temperature below −20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

None of the means included in these tables are based on less than 15 observations at the surface or 5 observations at a standard pressure level.

LATE REPORT FOR SWAN ISLAND, WEST INDIES

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during February 1946*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Swan Island, W. I. (1,014.7 mb.)				Standard pressure surface (mb.)	Swan Island, W. I. (1,014.7 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity		Number of observations	Dynamic height	Temperature	Relative humidity
Surface	28	10	24.4	80	500	28	5,849	−7.9	----
1,000	28	138	23.6	80	450	28	6,667	−13.9	----
950	28	590	20.3	80	400	28	7,542	−21.0	----
900	28	1,051	17.4	73	350	28	8,513	−28.4	----
850	28	1,537	14.5	68	300	28	9,600	−36.4	----
800	28	2,048	11.6	60	250	28	10,840	−45.4	----
750	28	2,590	9.1	50	200	26	12,200	−55.1	----
700	28	3,154	6.7	40	175	25	13,135	−59.6	----
650	28	3,766	4.1	----	150	22	14,085	−65.3	----
600	28	4,407	1.0	----	125	5	15,178	−71.9	----
550	28	5,102	−2.9	----					

LATE REPORTS FOR HAVANA, CUBA

[For levels of constant height. Observations taken at 1400 G. C. T.]

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during the period September 1944 through December 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	September 1944 (50 m.)				October 1944 (50 m.)				November 1944 (50 m.)				December 1944 (50 m.)				January 1945 (50 m.)				February 1945 (50 m.)				March 1945 (50 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	22	1,013.2	28.8	74	17	1,007.8	27.1	77	28	1,012.6	24.8	67	20	1,015.4	22.3	68	20	1,014.2	23.1	67	27	1,014.9	25.3	63	31	1,013.5	27.1	57
500	22	982.7	24.7	76	17	957.8	22.7	81	28	962.2	19.6	72	20	963.8	17.4	74	20	963.2	18.0	73	27	963.7	20.8	68	31	963.3	22.7	62
1,000	22	909.5	21.2	74	17	904.6	19.4	80	28	908.3	16.2	80	20	908.9	13.2	79	20	908.2	14.7	64	27	909.9	17.3	60	31	909.4	18.8	59
1,500	22	859.4	18.4	71	17	854.2	16.8	78	28	856.8	14.1	68	20	856.6	9.8	77	20	857.0	13.2	49	27	858.3	14.6	56	31	858.0	16.2	49
2,000	22	809.9	15.5	68	17	804.6	14.6	69	28	806.9	13.3	40	20	806.2	8.7	----	20	806.6	11.4	----	27	808.4	12.0	49	31	808.4	14.5	35
2,500	22	763.5	13.0	63	17	758.2	12.0	61	28	759.6	11.7	30	20	759.1	8.4	----	20	759.2	9.6	----	26	760.9	10.1	33	31	761.7	13.2	----
3,000	22	719.4	10.7	53	17	714.2	9.4	----	28	715.6	9.1	----	20	714.6	7.6	----	20	714.9	7.0	----	26	717.0	9.2	----	31	717.5	11.2	----
4,000	22	637.6	5.4	41	17	632.7	4.7	----	28	633.9	4.0	----	20	631.8	2.7	----	20	632.8	2.0	----	26	635.1	4.4	----	31	636.2	5.7	----
5,000	22	563.7	−0.1	36	17	558.7	−0.7	----	28	559.7	−1.9	----	20	557.8	−3.0	----	20	558.0	−3.9	----	26	560.8	−1.4	----	31	562.3	−0.7	----
6,000	22	496.6	−6.1	31	17	492.6	−6.5	----	27	492.8	−8.2	----	20	490.6	−9.4	----	20	490.8	−10.5	----	26	494.1	−7.8	----	31	495.3	−6.8	----
7,000	22	436.5	−12.1	----	17	433.0	−12.8	----	26	432.5	−15.0	----	20	430.4	−16.2	----	20	430.3	−17.3	----	25	433.5	−14.9	----	31	435.0	−13.9	----
8,000	22	381.5	−18.5	----	17	378.4	−19.4	----	26	377.7	−22.3	----	20	376.2	−23.5	----	19	376.4	−24.2	----	23	379.0	−22.1	----	30	380.1	−21.2	----
9,000	22	333.1	−25.6	----	17	329.8	−26.4	----	23	328.3	−30.0	----	19	327.0	−30.7	----	18	327.0	−31.4	----	23	330.2	−29.4	----	29	330.9	−28.7	----
10,000	22	289.3	−33.4	----	17	287.0	−34.0	----	25	285.1	−37.1	----	19	283.7	−38.5	----	17	283.7	−38.9	----	23	286.9	−36.3	----	29	287.5	−35.7	----
11,000	22	250.7	−40.7	----	17	248.8	−41.9	----	25	246.5	−44.7	----	19	244.5	−46.4	----	16	245.5	−46.1	----	22	247.5	−43.5	----	29	249.1	−42.3	----
12,000	21	216.3	−48.2	----	17	213.9	−49.6	----	24	211.8	−52.1	----	19	210.1	−53.5	----	15	210.5	−53.6	----	21	213.0	−49.5	----	28	214.5	−48.3	----
13,000	21	185.1	−55.9	----	17	182.8	−57.2	----	23	180.7	−58.2	----	19	179.1	−58.6	----	12	179.5	−58.2	----	17	182.9	−53.7	----	27	183.4	−53.8	----
14,000	19	157.7	−62.7	----	17	155.8	−64.1	----	19	154.1	−62.6	----	16	152.9	−62.7	----	9	153.2	−61.9	----	14	156.1	−59.5	----	23	157.0	−58.3	----
15,000	17	133.9	−68.7	----	15	132.4	−69.9	----	16	130.8	−66.3	----	16	129.8	−65.9	----	8	129.9	−65.8	----	12	132.8	−64.2	----	22	133.5	−62.4	----
16,000	17	113.0	−72.1	----	13	111.8	−73.3	----	15	110.9	−70.3	----	15	109.9	−68.6	----	6	109.7	−71.3	----	10	112.0	−69.1	----	19	112.9	−66.9	----
17,000	9	95.3	−72.0	----	10	94.4	−72.6	----	12	94.0	−72.6	----	12	93.5	−70.9	----	----	----	----	----	7	95.6	−72.1	----	15	95.5	−69.4	----
18,000	----	----	----	----	5	79.0	−66.5	----	7	78.7	−71.4	----	7	79.0	−69.9	----	----	----	----	----	5	81.2	−73.3	----	9	81.1	−70.0	----
19,000	----	----	----	----	----	----	----	----	5	66.8	−69.9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Altitude (meters) m. s. l.	April 1945 (50 m.)				May 1945 (50 m.)				June 1945 (50 m.)				July 1945 (50 m.)				August 1945 (50 m.)				September 1945 (50 m.)				October 1945 (50 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	28	1,011.0	28.7	58	29	1,010.2	28.8	57	29	1,010.4	29.8	65	18	1,011.4	29.6	69	30	1,009.6	29.6	71	30	1,009.6	29.0	74	25	1,009.5	26.3	75
500	28	960.9	24.1	63	29	960.3	24.0	62	29	960.8	25.5	67	18	961.8	25.7	70	30	960.5	25.6	72	30	960.2	24.7	76	25	959.7	23.9	79
1,000	28	910.3	20.2	64	29	906.7	20.2	60	29	907.6	22.0	65	18	908.6	22.6	66	30	907.4	22.4	69	30	906.6	21.3	74	25	906.2	20.4	78
1,500	28	856.7	17.5	57	29	855.8	17.5	51	29	856.9	19.5	57	18	857.4	19.9	62	30	856.2	19.7	64	30	855.8	18.6	70	25	854.9	17.5	73
2,000	28	807.4	14.7	46	29	806.4	15.0	46	29	808.1	17.2	49	18	809.1	16.8	59	30	807.5	17.1	58	30	807.0	16.0	68	25	805.9	14.8	67
2,500	28	760.4	13.1	31	29	759.9	12.6	34	29	761.9	14.5	44	18	763.4	14.5	52	30	761.7	14.5	54	30	761.2	13.6	65	25	760.2	12.7	61
3,000	28	717.0	10.9	27	29	715.9	10.3	30	29	718.0	11.8	41	18	718.9	11.8	42	30	717.5	11.8	49	30	716.9	11.2	58	25	716.1	10.4	50
4,000	28	635.7	6.1	----	29	633.9	5.0	27	29	636.8	5.5	36	18	637.8	6.1	39	30	636.4	6.1	47	30	635.7	5.8	55	25	635.0	5.4	40
5,000	28	561.7	0.4	----	29	560.1	−0.7	----	28	562.9	0.0	38	18	563.3	0.2	----	30	562.3	0.6	43	30	561.8	0.1	52	24	560.7	−0.8	----
6,000	28	495.2	−6.0	----	29	493.8	−7.1	----	27	496.2	−5.5	37	17	496.8	−5.6	----	30	495.8	−5.1	43	29	495.5	−5.5	47	24	494.0	−6.8	----
7,000	28	435.5	−12.9	----	29	433.7	−13.6	----	27	436.5	−11.2	36	17	437.3	−11.3	----	29	436.6	−10.8	42	29	436.0	−11.2	41	24	434.3	−12.8	----
8,000	28	380.7	−20.3	----	27	378.4	−20.5	----	27	382.1	−17.5	----	17	382.7	−17.7	----	28	382.6	−17.4	46	29	381.8	−17.8	40	22	380.0	−19.5	----
9,000	28	331.6	−27.8	----	27	330.2	−27.2	----	27	333.4	−24.4	----	16	334.1	−24.8	----	28	333.5	−24.6	47	28	333.2	−24.9	----	22	331.1	−26.8	----
10,000	28	287.9	−35.6	----	27	287.2	−34.5	----	27	290.1	−31.8	----	16	290.1	−32.6	----	28	289.9	−32.2	----	28	289.5	−32.9	----	22	287.9	−34.8	----
11,000	27	249.2	−42.8	----	27	248.1	−41.9	----	26	251.4	−39.3	----	16	251.2	−40.4	----	28	251.1	−40.7	----	28	250.8	−41.0	----	22	248.6	−42.7	----
12,000	27	214.7	−49.6	----	26	214.0	−48.7	----	24	216.9	−46.6	----	15	216.6	−48.1	----	28	216.4	−48.4	----	27	215.7	−48.9	----	22	213.9	−50.3	----
13,000	27	183.5	−54.7	----	26	183.4	−55.0	----	23	186.0	−53.2	----	15	184.5	−55.5	----	28	184.9	−56.2	----	27	184.5	−57.2	----	22	182.9	−57.8	----
14,000	27	156.7	−59.8	----	26	156.3	−60.1	----	23	159.2	−59.4	----	15	157.9	−61.9	----	27	158.0	−62.5	----	27	157.2	−64.1	----	21	155.8	−64.3	----
15,000	27	133.6	−64.2	----	25	133.2	−62.7	----	22	135.7	−63.8	----	15	134.5	−65.6	----	27	134.3	−66.6	----	25	133.3	−69.2	----	21	132.3	−69.4	----
16,000	27	112.9	−68.1	----	22	113.0	−64.9	----	21	114.6	−67.7	----	15	114.1	−67.2	----	27	113.9	−68.9	----	24	112.8	−72.2	----	21	111.6	−73.0	----
17,000	19	95.7	−70.2	----	18	96.0	−66.4	----	20	97.2	−69.2	----	15	96.7	−65.5	----	25	96.0	−66.4	----	24	95.2	−69.9	----	18	94.5	−72.8	----
18,000	8	80.7	−67.9	----	8	81.6	−65.4	----	17	82.1	−68.0	----	14	81.9	−62.6	----	21	81.5	−63.9	----	19	80.4	−66.4	----	17	79.4	−68.4	----
19,000	5	68.8	−65.9	----	6	69.2	−63.5	----	13	70.0	−62.2	----	11	69.8	−59.5	----	18	69.6	−60.4	----	15	68.2	−62.1	----	13	67.5	−64.3	----
20,000	----	----	----	----	----	----	----	----	6	58.7	−57.9	----	8	59.4	−55.6	----	11	58.7	−59.1	----	9	57.8	−59.7	----	9	57.7	−59.6	----
21,000	----	----	----	----	----	----	----	----	----	----	----	----	5	51.2	−53.1	----	----	----	----	----	----	----	----	----	----	----	----	----

Altitude (meters) m. s. l.	November 1945 (50 m.)				December 1945 (50 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	27	1,011.4	25.0	70	17	1,012.2	23.9	75
500	27	960.9	20.8	74	17	961.4	19.8	77
1,000	27	906.5	16.8	77	17	907.0	16.6	74
1,500	27	854.9	14.1	73	17	854.9	14.3	67
2,000	27	805.2	12.1	60	17	805.4	12.3	----
2,500	27	758.9	11.6	40	17	759.1	11.1	----
3,000	27	714.4	9.4	----	17	714.3	9.6	----
4,000	26	633.1	5.8	----	17	632.8	4.4	----
5,000	26	558.8	−2.3	----	17	559.1	−1.0	----
6,000	25	491.9	−8.4	----	17	492.4	−7.6	----
7,000	25	432.2	−15.3	----	17	432.8	−13.5	----
8,000	24	377.4	−22.9	----	16	378.1	−20.7	----

Altitude (meters) m. s. l.	November 1945 (50 m.)				December 1945 (50 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
9,000	23	328.3	−30.5	----	15	329.3	−28.1	----
10,000	22	284.8	−38.0	----	15	286.1	−35.5	----
11,000	21	245.8	−45.6	----	15	247.4	−43.0	----
12,000	21	210.7	−52.9	----	15	212.5	−50.7	----
13,000	21	179.8	−60.0	----	14	182.1	−58.1	----
14,000	20	152.9	−65.8	----	13	154.8	−63.3	----
15,000	20	129.5	−69.6	----	13	131.5	−65.8	----
16,000	19	109.4	−71.8	----	13	111.5	−68.4	----
17,000	14	92.3	−73.8	----	9	93.9	−70.3	----
18,000	12	77.8	−71.4	----	7	79.4	−72.5	----
19,000	10	66.2	−67.2	----	----	----	----	----
20,000	6	56.2	−62.0	----	----	----	----	----

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.) during March 1946. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*

Altitude (meters) m. s. l.	Abilene, Tex. (534 m.)			Albuquerque, N. Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Browns-ville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burling-ton, Vt. (100 m.)			Charles-ton, S. C. (16 m.)			Cincin-nati, Ohio (150 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,198 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	228	2.3	31	255	3.0	28	235	2.5	30	270	2.3	31	349	0.9	30	95	1.7	31	124	4.7	31	229	1.5	30	284	2.4	30	245	1.0	30	169	0.6	30	21	1.7	26	241	2.7
500							28	232	2.0										31	133	5.2	31	228	3.3	30	267	3.9	30	238	3.5	30	198	2.5						
1,000	31	229	3.9				28	240	3.9				31	299	1.0	30	101	1.9	25	159	2.4	25	225	5.2	30	264	5.9	27	242	5.7	27	209	3.8						
1,500	31	236	5.0				27	251	5.1	30	258	3.6	24	284	5.0	30	193	1.4	22	252	1.5	22	245	6.2	28	272	8.1	26	247	6.2	24	230	5.5				26	246	4.1
2,000	31	244	5.3	31	260	3.4	25	251	6.0	29	253	4.6	22	277	8.0	29	240	4.2	22	267	3.2	20	254	7.2	25	292	11.0	26	255	6.8	22	245	6.6	30	15	1.3	26	252	3.8
2,500	30	265	6.8	30	261	4.6	22	260	7.5	28	258	5.9	22	276	10.0	28	256	5.6	21	253	4.9	17	264	7.6	21	278	10.0	24	269	7.3	18	243	6.1	28	286	1.5	26	248	4.7
3,000	28	268	9.1	29	268	6.3	18	266	9.4	25	254	7.5	21	272	11.1	24	272	5.0	21	261	7.0	15	285	8.4	18	300	12.0	24	270	8.1	15	264	8.4	27	278	2.4	26	255	6.9
4,000	24	259	12.9	27	276	10.1	13	287	11.5	18	255	8.4	19	269	12.9	21	273	8.2	19	256	10.2	13	301	10.4	17	298	17.4	18	259	13.5	10	286	9.1	26	271	6.5	23	268	11.0
5,000	18	270	16.2	23	282	11.2	10	280	13.8	16	253	11.4	17	257	14.1	18	277	12.4	18	267	12.9	10	317	9.1	15	302	18.3	14	271	16.8				23	269	9.3	19	258	13.8
6,000	16	278	17.6	21	290	10.9				15	252	12.7	15	267	17.4	13	281	12.6	16	276	16.9				12	287	20.0	12	275	19.6				20	271	10.8	11	261	21.1
8,000				18	296	12.9				11	251	14.8													10	289	10.1							14	271	13.4			
10,000				14	300	22.0																												10	256	15.8			

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,413 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jackson-ville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (573 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (416 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	180	1.7	30	250	2.0	27	212	1.4	30	268	2.3	31	93	0.8	28	189	1.2	31	161	0.8	27	198	2.1	29	299	1.1	31	134	2.9	27	207	1.2	28	218	3.1	29	245	0.9
500							27	227	2.5				31	226	1.1	28	155	2.0				27	217	3.5	29	291	1.2	31	138	3.0	27	205	2.2	28	205	4.5	29	220	2.4
1,000							27	231	3.1	30	272	3.3	27	241	2.4	21	208	5.6	31	173	0.5	26	233	5.2	29	249	1.4	31	159	2.2	23	256	3.3	26	204	4.7	26	267	3.7
1,500				30	254	2.1	27	239	4.9	30	666	4.6	27	257	3.2	17	232	9.7	31	205	1.8	25	241	6.8	27	227	3.0	31	224	1.5	21	295	4.9	24	215	4.9	24	297	5.4
2,000	30	191	1.4	30	246	1.7	24	254	5.7	28	264	6.7	26	259	4.7	16	239	10.9	31	223	3.0	21	260	9.8	24	227	4.8	28	252	2.4	16	298	8.1	22	237	7.1	23	300	6.7
2,500	30	212	3.6	29	224	2.7	21	274	6.8	25	253	7.2	23	277	6.4	16	247	10.1	29	230	3.7	18	271	10.8	18	233	4.7	23	273	3.0	12	292	7.9	22	245	7.3	19	300	7.7
3,000	27	219	4.3	27	225	5.0	20	278	9.0	19	255	7.5	20	283	7.2	13	267	8.8	28	251	3.5	18	273	12.1	15	256	5.0	23	281	3.2	11	301	9.8	21	246	7.0	17	297	9.4
4,000	20	253	7.8	22	244	7.7	17	288	11.4	12	237	3.8	15	282	10.7				25	273	4.2	16	278	17.9	13	274	8.1	17	295	5.7							18	256	8.4	13	300	9.6
5,000	14	277	9.2	16	247	10.3	14	290	11.6				13	283	15.6				24	281	5.6	14	285	20.1	11	285	10.2	16	298	8.1							15	271	13.4			
6,000	14	285	12.0	13	264	12.4	13	288	15.6										22	262	8.6				10	263	12.3	14	289	11.5							12	266	13.4			
8,000	11	290	15.1																15	310	14.2																		
10,000																																							

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault Ste. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	29	248	4.4	29	215	2.6	29	154	0.7	31	175	1.0	31	334	2.9	29	184	2.7	29	219	0.4	31	179	1.3	30	249	3.4	30	246	1.9	30	193	2.5	30	230	2.7	28	208	1.9
500	29	281	4.2	29	216	3.4	29	178	1.4	31	202	2.0				29	204	3.9	29	231	0.7	31	184	1.3	30	239	3.0	30	245	2.5	30	210	4.9				28	225	3.2
1,000	27	308	2.8	29	214	4.5	27	193	2.9	31	219	2.9	31	334	2.9	27	207	5.2	26	212	1.9	31	192	2.5	27	194	1.9	29	244	2.9	28	205	5.5	30	224	3.6	27	242	2.9
1,500	24	330	2.4	27	232	5.6	22	218	3.0	31	214	3.3	31	312	3.6	25	216	7.7	24	252	4.1	27	207	3.4	25	188	1.9	27	239	5.9	21	210	5.4	27	236	4.3	25	259	4.5
2,000	23	334	1.9	26	242	7.2	19	249	5.9	30	208	3.6	28	278	4.0	25	223	8.7	21	282	6.1	25	228	3.9	22	218	1.9	26	272	6.4	18	222	4.7	22	235	4.0	23	273	7.1
2,500	21	337	4.4	24	245	8.9	18	263	6.1	29	210	3.7	25	266	4.7	22	257	8.1	20	285	6.9	23	248	7.0	21	253	2.9	24	278	8.3	13	241	6.0	16	234	6.0	21	278	9.8
3,000	21	329	6.4	21	263	10.2	18	274	7.7	28	225	5.8	23	266	5.8	18	251	7.3	19	283	8.9	23	268	10.1	21	280	4.0	21	281	9.1	13	240	6.5	11	259	5.4	21	274	11.4
4,000	19	314	8.6	19	270	14.3	16	289	7.4	27	253	9.2	21	264	8.9	15	270	10.9	18	282	11.0	22	260	13.8	19	272	7.9	17	284	7.2	10	254	4.5				20	284	13.5
5,000	14	311	10.6	12	281	17.2	14	290	9.5	24	258	11.0	17	269	13.1	15	273	12.7	17	279	12.0	21	271	17.0	16	270	8.3	15	292	9.6	10	223	6.6				16	286	13.5
6,000	12	328	14.0	10	286	21.9	11	284	9.9	23	270	12.3	16	254	15.2	10	294	20.1	13	271	14.4	19	275	19.5	16	270	8.3	12	285	9.0							13	288	14.3
8,000										13	292	15.6										16	278	23.0	10	270	10.7										10	290	16.6
10,000										10	290	20.2																											

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during March 1946*

Section	Surface to 2,500 meters (m. s. l.)					Above 2,500 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast [1]	47.3	WNW.	1,917	14	Portland, Maine	53.0	W.	4,927	10	Portland, Maine	64.0	W.	6,622	30	Caribou, Maine.
East-Central [2]	42.5	W.	2,341	9	Greensboro, N. C.	50.4	WSW.	2,910	26	Knoxville, Tenn	118.0	W.	7,782	9	Huntington, W. Va.
Southeast [3]	34.7	WSW.	1,782	9	Spartanburg, S. C.	46.5	NW.	5,000	2	Birmingham, Ala.	57.0	N.	11,021	31	Charleston, S. C.
North-Central [4]	42.6	SW.	1,618	12	Madison, Wis.	48.3	WNW.	5,000	26	Sault Ste. Marie, Mich.	72.0	NW.	14,492	20	Milwaukee, Wis.
Central [5]	40.6	SW.	2,303	3	Dodge City, Kans.	48.4	NW.	4,983	9	Goodland, Kans.	86.4	WNW.	15,388	10	Goodland, Kans.
South-Central [6]	41.0	WNW.	1,867	8	Dallas, Tex.	57.1	WNW.	4,020	29	Little Rock, Ark.	79.0	W.	10,000	16	Big Spring, Tex.
Northwest [7]	36.0	WNW.	1,935	1	Glasgow, Mont.	55.2	NW.	5,000	6	Burns, Oreg.	83.0	NW.	8,446	6	Ellensburg, Wash.
West-Central [8]	33.5	S.	2,500	28	Ely, Nev.	55.1	NW.	5,000	6	Winnemucca, Nev.	80.0	NW.	11,860	15	Oakland, Calif.
Southwest [9]	34.9	NNW.	2,114	14	Burbank, Calif.	60.0	WSW.	4,557	31	Raton, N. Mex.	64.0	NW.	10,600	16	Albuquerque, N. Mex.

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS FOR MARCH 1946

By C. R. JORDAN

Precipitation during March was heavy in the middle Gulf States, Nevada, Wyoming, southern Nebraska, Iowa, and adjacent areas. It was dry in the Northeastern States and in a large area in the Southwest.

Moderate floods were reported in Georgia, Florida, Minnesota, the Dakotas, and Michigan. The heavy snow cover in the northern States from the Mississippi Valley to Maine was melted and carried to the sea with only minor local flooding resulting. Very warm weather during March, with deficient precipitation over critical areas, resulted in gradual run-off from the snow without any serious flooding for the second consecutive year.

Red River of the North.—A flood of limited extent occurred in the valley of the Red River of the North late in March due to rapid melting and run-off of a heavy snow cover. Surveys at the end of February indicated more than 15 inches of snow over the upper part of the valley on the Minnesota side, with depths as great as 35 inches near Wheaton, Minn., and 20 inches near Fergus Falls, Minn. On the North Dakota side there was less than 15 inches, as a rule, with only 10 inches at Hankinson, N. Dak., and 5 inches at Lisbon. Mean temperature departures at Fargo-Moorhead were from +12° to +23° each day from March 14 to March 23. This extremely warm weather caused a rapid melting of the snow, and the water accumulated in the channels quickly. The Red River, at Fargo and below, rose over 2 feet per day for several days. There was some overflow of lowlands in the valley but damage was not great.

St. Lawrence drainage.—Floods occurred in the Grand and Saginaw River basins of southern Michigan as a result of rapid snow melt combined with moderate precipation during the first decade of the month. Greatest overflow was in the tributaries of the Saginaw River. The places hardest hit by the floods were Alma, on the Pine River; Mt. Pleasant, on the Chippewa; Midland, on the Tittabawassee; Vassar, on the Cass; and Saginaw, on the Saginaw River. The crest of 11.6 feet at Alma was the highest on record, with the one exception of March 17, 1919, when the water reached 12.1 feet. At Mt. Pleasant the crest of 14.1 feet was only 0.1 foot below the previous highest record of May 22, 1912. At Midland the crest of 22.6 feet was the third highest of record, and at Saginaw the crest of 20.8 feet was well below the record stage of 24.3 feet that occurred on March 31, 1916, but it was the highest stage reached at Saginaw since the spring of 1942.

A number of highway bridges were destroyed or damaged and many homes were inundated. Highway travel had to be suspended in numerous sections where the roads were under water or bridges out of commission. There was also some loss that resulted from suspension of business that was made necessary by the high waters.

Atlantic Slope and East Gulf of Mexico drainage.—The heavy blanket of snow that covered the Northeastern States at the end of February was melted gradually and carried off by the streams without any serious overflow. Flood stages were exceeded at scattered points in New England and in the headwaters of the Susquehanna River in New York, but no general or serious flood stages were reached. Ice action in some of the streams resulted in local overflow.

Streams continued high in the Southeastern States although much below the high levels of January and February. There were several periods of heavy rainfall during March that affected the river stages. Most effective were those rains of the last few days of the month in Alabama, western Georgia, and Florida. A tabulation of flood stages reached is given in the table at the end of this report.

Mississippi System.—Light to moderate flooding occurred in the Mississippi Valley at many stations from the headwater tributaries to the Gulf of Mexico. Bankful stages were reached in the main stream from Gordons Ferry, Iowa, to Grafton, Ill., and at Baton Rouge and Plaquemine, La.

Minor flooding occurred in the upper tributaries of the Mississippi as a result of melting snow that accompanied an extended period of warm weather which prevailed most of the month. Fed by melting snow in the headwaters, the upper Mississippi River rose steadily, and as the increased flow moved downstream, it was augmented by additional run-off from rain and melting snow. Moderate flood stages were reached along the main stream from Gordons Ferry, Iowa, to below Grafton, Ill. Scattered flooding was reported in many of the tributaries of the middle and lower Mississippi, including the Missouri, Ohio, Arkansas, Red, Yazoo, and Atchafalaya Rivers.

West Gulf of Mexico drainage.—There was some overflow of streams in Louisiana and Texas. The Sabine River was falling along its entire course at the beginning of the month but was still in flood at several stations. It fell below flood stage at all points during the first half of the month, but additional rain occurred near the end of the month that caused the stream to exceed flood stage slightly at a few points, and it continued above flood stage at the end of the month. Several other streams, including the Neches, Trinity, and Guadalupe Rivers, were above flood stage during the month, but overflow was very moderate.

FLOOD STAGE REPORT FOR MARCH 1946

[All dates in March unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
HUDSON BAY DRAINAGE					
Red of North:	*Feet*			*Feet*	
Moorhead, Minn.	17	23	30	23.1	22
Grand Forks, N. Dak.	25	26	Apr. 2	28.3	28
ST. LAWRENCE DRAINAGE					
Lake Michigan					
Red Cedar:					
Williamston, Mich.	7	3	4	7.1	3
		5	6	7.2	6
East Lansing, Mich.	8	3	4	8.9	4
		6	6	8.1	6
Grand: Lowell, Mich.	15	8	10	15.5	9
Lake Huron					
Flint: Flint, Mich.	11	7	7	11.4	7
Cass: Vassar, Mich.	14	6	8	16.7	8
Chippewa: Mt. Pleasant, Mich.	13	7	9	14.1	8
Pine: Alma, Mich.	9	6	9	11.6	8
Tittabawassee: Midland, Mich.	18	7	10	22.6	8
Shiawassee: Owosso, Mich.	7	6	6	7.5	6
Saginaw: Saginaw, Mich.	19	8	13	20.8	9
Lake Erie					
St. Joseph: Montpelier, Ohio	10	7	7	10.0	7
ATLANTIC SLOPE DRAINAGE					
Pemigewasset: Plymouth, N. H.	11	15	15	11.3	15
Connecticut:					
South Newbury, Vt.	22	16	16	22.3	16
White River Junction, Vt.	18	8	9	20.3	8
Walpole, N. H.	30	10	10	31.5	10
Hartford, Conn.	16	10	12	18.0	11
		16	18	17.5	17
Tioughnioga: Whitney Point N. Y.	12	7	9	13.1	9
Chenango:					
Sherburne, N. Y.	8	9	9	9.0	9
Greene, N. Y.	8	9	9	9.6	9
Binghamton, N. Y.	16	8	10	17.8	9

See footnote at end of table.

FLOOD STAGE REPORT FOR MARCH 1946—Continued

[All dates in March unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE—continued					
Susquehanna:	*Feet*			*Feet*	
Oneonta, N. Y.	12	8	13	17.2	8
Unadilla, N. Y.	11	8	9	11.8	8
Bainbridge, N. Y.	12	8	10	15.5	9
Conklin, N. Y.	11	8	9	15.5	9
Vestal, N. Y.	14	7	9	20.3	9
James: Columbia, Va.	10	17	17	10.4	17
		22	22	10.0	22
Roanoke: Williamston, N. C.	10	Feb. 2	2	10.7	Feb. 7
				11.6	Feb. 18
Saluda: Pelzer, S. C.	6	16	19	7.2	18
		29	(2)	6.5	29
Broad: Blairs, S. C.	14	19	19	14.0	19
Broad: Carlton, Ga.	15	30	30	15.0	30
Savannah: Butler Creek, Ga.	21	31	(2)		
Ocmulgee: Macon, Ga.	18	30	30	18.0	30
		Feb. 24	5	13.4	2
Altamaha: Charlotte, Ga.	12	24	27	12.4	26
		31	(2)		
EAST GULF OF MEXICO DRAINAGE					
Chattahoochee: Norcross, Ga.	16	30	30	17.0	30
				20.0	Dec. 31
				21.2	Jan. 13–14, 16
		Dec. 26	6	16.3	Feb. 5
				18.6	Feb. 18
Apalachicola: Blountstown, Fla.	15			19.2	Feb. 24
		11	(2)	19.2	21–22
Choctawhatchee:					
Newton, Ala.	19	28	30	24.1	29
Geneva, Ala.	23	29	Apr. 1	26.6	31
Caryville, Fla.	12	29	4	14.0	31
Etowah:					
Canton, Ga.	17	9	9	19.4	9
		29	30	21.6	30
Cartersville, Ga.	18	9	10	22.5	10
		29	31	26.6	29
Coosa: Gadsden, Ala.	20	29	Apr. 6	23.8	31
Alabama:					
Montgomery, Ala.	35	31	Apr. 3	39.4	1
Millers Ferry, Ala.	40	30	Apr. 7	44.4	4
Tombigbee:					
				60.0	Jan. 21–22
		Jan. 8	6	42.5	Feb. 4
				63.4	Feb. 19–20
Lock No. 4, Demopolis, Ala.	39	10	13	40.5	12
		17	23	44.1	20
		29	Apr. 4	43.7	Apr. 2
				59.0	Jan. 23
				45.0	Feb. 4
Lock No. 3, Ala.	33	Jan. 7	(2)	61.0	Feb. 21
				42.8	12
				46.7	21
				60.2	Jan. 24
		Jan. 10	7	62.3	Feb. 21–22
Lock No. 2, Ala.	46	18	24	48.3	22
		30	Apr. 4	47.9	Apr. 3
				40.7	Jan. 26
				43.5	Feb. 25
Lock No. 1, Ala.	31	Jan. 9	(2)	34.1	23
Chickasawhay:					
Enterprise, Miss.	20	16	19	24.3	18
Shubuta, Miss.	30	19	20	31.8	20
Pascagoula: Merrill, Miss.	22	19	22	22.3	20–21
Pearl:					
Edinburg, Miss.	20	18	22	21.5	20
Jackson, Miss.	18	Feb. 6	5	34.5	Feb. 17
		16	(2)	26.7	27
Monticello, Miss.	15	Feb. 8	4	25.0	Feb. 21
		17	20	17.3	18
		29	(2)	15.2	30
Columbia, Miss.	17	Feb. 12	5	23.8	Feb. 23
				14.0	Jan. 12, 4 25
Pearl River, La.	12	Jan. 8	(2)	16.0	Feb 27
				15.2	18
				14.8	29
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Chippewa: Durand, Wis.	11	17	21	12.4	19
Whitewater: Beaver, Minn.	7	4	4	7.0	4
Black: Galesville, Wis.	12	17	17	12.0	17
Wisconsin: Portage, Wis.	17	18	22	17.7	19
Rock: Moline, Ill.	10	5		12.4	20–21
Cedar: Waterloo, Iowa.	12	7	8	12.7	7
		14	14	12.0	14

See footnotes at end of table.

FLOOD STAGE REPORT FOR MARCH 1946—Continued

[All dates in March unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM—continued					
***Upper Mississippi Basin*—Continued**					
	Feet			*Feet*	
Iowa: Wapello, Iowa.	10	19	22	11.3	20
Des Moines:		16	18	15.1	17
Tracy, Iowa.	14	27	27	14.2	27
		16	19	17.4	18
Eddyville, Iowa.	15	27	28	15.8	27
		16	19	10.7	18
Ottumwa, Iowa.	9	28	28	9.2	28
Illinois:					
Havana, Ill.	14	19	Apr. 3	15.0	25
Beardstown, Ill.	14	20	Apr. 4	15.2	27–29
Meramec: Pacific, Mo.	11	8	8	11.0	8
Mississippi:					
Gordons Ferry, Iowa.	13	18	(2)	16.1	27–28
Clinton, Iowa.	16	26	(2)	16.6	29
Muscatine, Iowa.	15	21	(2)	16.8	28–30
Keithsburg, Ill.	12	19	(2)	13.7	29
Burlington, Iowa.	15	27	Apr. 1	15.2	29
Keokuk, Iowa.	12	15	Apr. 8	16.0	29–30
				15.3	18
Gregory Landing, Mo.	12	14	(2)	16.1	26
				16.2	29
				18.5	26
Quincy, Ill.	14	15	Apr. 8	18.2	30
				18.7	26
Hannibal, Mo.	13	----------	Apr. 9	18.3	30
Louisiana, Mo.	12	----------	(2)	17.1	27
				16.6	30
Grafton, Ill.	18	21	Apr. 5	19.4	29
Missouri Basin					
James: Huron, S. Dak.	9	20	22	9.4	21
		3	7	15.2	5
Big Sioux: Akron, Iowa.	12	16	19	14.9	17
		23	23	12.7	23
Grand:					
Gallatin, Mo.	20	18	18	21.7	18
		7	7	18.6	7
Chillicothe, Mo.	18	17	19	27.3	18
		25	25	18.0	25
		27	27	18.9	27
Ohio Basin					
Scioto: Circleville, Ohio.	14	20	20	14.3	20
Rough: Dundee, Ky.	25	27	30	26.2	29
Green: Lock No. 4 Woodbury, Ky.	33	28	28	33.1	28
West Fork:					
Anderson, Ind.	10	15	15	10.1	15
Elliston, Ind.	18	17	22	20.7	21
Edwardsport, Ind.	12	Feb. 28	4	12.9	2
		16	27	18.4	22
White:					
Petersburg, Ind.	16	19	25	18.4	23
Hazleton, Ind.	16	19	26	18.9	24
Wabash:					
Wabash, Ind.	12	17	19	14.4	18
LaFayette, Ind.	11	17	21	15.4	19
Covington, Ind.	16	18	22	18.4	21
Terre Haute, Ind.	14	20	23	14.8	22
French Broad: Asheville, N. C.	6	15	15	6.0	15
Ohio: Cairo, Ill.	40	26	Apr. 4	41.3	31
White Basin					
Black: Black Rock, Ark.	14	Feb. 13	5	23.1	Feb. 15
				21.2	Feb. 24
		7	22	21.5	7
White:					
Georgetown, Ark.	21	Feb. 15	28	25.0	Feb. 22
Des Arc, Ark.	24	Feb. 18	4	27.7	Feb. 23
		10	13	24.5	11
Clarendon, Ark.	26	Feb. 10	(2)	29.4	Feb. 26–27
				27.9	31
St. Charles, Ark.	25	Jan. 15	(2)	28.3	Jan. 24–26
				26.2	31
Petit Jean: Danville, Ark.	20	7	8	21.1	7
		29	31	22.2	29
Red Basin					
Saline: Benton, Ark.	20	7	7	20.8	7
		28	29	25.2	28
Ouachita:					
Arkadelphia, Ark.	17	7	7	18.7	7
		28	30	24.0	29
Camden, Ark.	26	9	13	30.2	11
		29	(2)		
Monroe, La.	40	Jan. 23	(2)	45.3	Feb. 24–26, 27
Black: Jonesville, La.	50	Jan. 30	(2)	52.9	Feb. 21–24
Red: Alexandria, La.	32	Feb. 11	4	35.9	Feb. 25
Lower Mississippi Basin					
St. Francis: St. Francis, Ark.	18	Feb. 16	5	20.7	Feb. 21–24
Coldwater: Sarah, Miss.	18	16	16	18.3	16
		26	26	18.1	26
		27	31	20.4	29

See footnotes at end of table.

FLOOD STAGE REPORT FOR MARCH 1946—Continued

[All dates in March unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM—continued					
Lower Mississippi Basin—Con.					
	Feet			*Feet*	
Tallahatchie: Swan Lake, Miss.	26	Jan. 7	(2)	31.8	Jan. 13
				32.0	Feb. 13
				27.9	11, 17, 19
Yazoo:					
Greenwood, Miss.	35	Jan. 14	8	38.9	Jan. 21
				39.8	Feb. 17
Yazoo City, Miss.	29	Jan. 14	(2)	37.0	Feb. 10
Mississippi:					
Baton Rouge, La.	35	1	4	35.2	2-3
Plaquemine, La.	31	Feb. 27	5	31.6	3
Atchafalaya:					
Melville, La.	37	Feb. 26	7	37.7	3
Atchafalaya, La.	25	Feb. 15	(2)	26.9	3-5
Morgan City, La.	6	5	8	6.2	6, 8
		14	17	6.5	16
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Kinder, La.	16	30	(2)		
Sabine:					
Gladewater, Tex.	26	Feb. 10	3	34.4	Feb. 13
				29.9	Feb. 27
Logansport, La.	25	Jan. 6	14	28.9	Jan. 12
				28.8	Jan. 21
				26.4	Feb. 4
				29.2	Feb. 13
					24-25
				28.7	10
		28	(2)	25.2	30

FLOOD STAGE REPORT FOR MARCH 1946—Continued

[All dates in March unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
WEST GULF OF MEXICO DRAINAGE—con.					
Lower Mississippi Basin—Con.				*Feet*	
	Feet				
Milam, Tex.	30	Feb. 7	11	42.5	Feb. 12
		14	19	31.4	16-17
		28	(2)		
				21.0	Jan. 12
				20.6	Jan. 21-23
		Jan. 8	21		
Bon Wier, Tex.	17			21.7	Feb. 20
				17.8	15
		28	(2)		
Neches: Evadale, Tex.	16	Feb. 12	8	20.3	Feb. 19
		27	29	16.0	27-29
East Fork: Rockwall (nr.), Tex.	10	14	16	11.2	15
		26	30	13.3	29
Trinity:					
Trinidad, Tex.	28	Feb. 19	3	35.8	Feb. 27
				27.0	Feb. 14
Liberty, Tex.	24	Feb. 10	22	26.8	Feb. 22
				25.8	10
				27.0	18
		30	(2)		
Guadalupe: Gonzales, Tex.	20	13	15	25.9	14

[1] Provisional.
[2] Continued at end of month.

CLIMATOLOGICAL DATA FOR MARCH 1946

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see Review, January 1943, p. 15]

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Section	Temperature								Precipitation					
			Monthly extremes								Greatest monthly		Least monthly	
	Section average	Departure from the normal	Station	Highest	Date	Station	Lowest	Date	Section average	Departure from the normal	Station	Amount	Station	Amount
	°F.	°F.		°F.			°F.		In.	In.		In.		In.
Alabama	61.4	+5.4	Geneva	92	30	Valley Head	25	11	7.98	+2.24	Spring Hill	16.61	Falkville	3.91
Arizona	52.0	+.6	Florence	93	27	2 stations	1	5	.51	−.57	McNary	2.05	9 stations	.00
Arkansas	58.2	+5.5	Okay	94	31	Mount Ida	19	9	5.47	+.69	Alum Fork	11.28	Beaver	1.64
California	49.8	−1.4	Greenland Ranch	94	27	South Lake	−4	14	3.27	−.41	Mount Wilson Ap	15.39	2 stations	.00
Colorado	38.6	+4.0	Eversoll Ranch	92	31	Taylor Park	−27	8	1.36	+.04	Wolf Creek Pass	5.07	do	T
Florida	67.2	+1.9	Arcadia	94	26	Niceville	31	1	4.26	+1.04	De Funiak Springs	13.30	Lake Trafford	.00
Georgia	60.8	+4.4	7 stations	87	15	Blairsville	23	10	6.23	+1.23	Clayton	11.71	Augusta	2.44
Idaho	38.0	+2.3	Kooskia	77	26	Blackfoot Dam	−11	17	2.22	+.44	Roland	6.03	Salmon	.60
Illinois	52.7	+11.6	2 stations	84	1 28	Mount Carroll	2	10	2.80	−.38	Rantoul	5.85	Centralia	.83
Indiana	52.8	+11.8	Tell City	84	27	2 stations	16	11	3.11	−.66	Leavenworth	5.22	Vincennes	1.18
Iowa	47.0	+12.2	2 stations	89	31	Decorah	−7	9	4.18	+2.40	Thurman	8.32	Hawarden	1.47
Kansas	52.5	+8.9	3 stations	97	31	2 stations	10	8	2.21	+.74	Emmett	4.79	Cimarron	.34
Kentucky	56.1	+9.5	Lovelaceville	85	29	Clermont	16	11	4.47	−.30	Shelbyville	7.36	Uniontown	1.58
Louisiana	62.8	+2.2	5 stations	94	1 30	Plain Dealing	27	9	7.68	+2.87	Pearl River	18.43	Lake Arthur	3.12
Maryland-Delaware	50.5	+7.6	Great Falls, Md	83	28	Oakland, Md	12	10	2.51	−1.10	Lewes, Del	4.58	Annapolis, Md	1.07
Michigan	41.6	+11.6	Adrian	83	29	2 stations	−13	11	1.85	−.23	Paw Paw	5.53	Painesdale	.52
Minnesota	39.9	+13.1	Thief River Falls	85	27	do	−32	8	1.82	+.59	Fairmont	5.75	Cambridge	.32
Mississippi	61.2	+4.1	Bay St. Louis	92	30	Vicksburg Ap	27	1	7.07	+1.20	Biloxi	16.48	Rosedale	4.30
Missouri	55.3	+11.1	Anderson	92	31	Kirksville	12	9	2.82	−.42	Tarkio	7.31	Forsyth	.71
Montana	38.4	+7.1	Glendive	83	27	West Yellowstone	−11	7	.95	−.03	Heron	4.72	Scobey	T
Nebraska	46.4	+9.7	Alma	95	31	Newport	−5	8	2.23	+1.11	Auburn	5.81	Box Butte Exp. Farm	.62
Nevada	42.2	+1.6	Overton	85	9	Geyser	−6	22	1.57	+.57	Glenbrook	6.10	2 stations	.00
New England	41.6	+9.2	2 stations	87	29	Lemington, Vt	−16	1	1.53	−2.08	Machias, Maine	2.51	Bethlehem, N. H	.47
New Jersey	47.9	+8.5	Layton	83	28	Layton	8	1	3.17	−.64	Burlington	5.13	Vineland	1.80
New Mexico	46.9	+3.2	Roswell No. 2	99	31	Gavilan	−18	6	.78	+.02	Lake Maloya	5.85	10 stations	.00
New York	43.2	+10.9	6 stations	85	29	Indian Lake	−8	1	1.65	−1.41	New York City	3.31	Avon	.50
North Carolina	56.5	+6.4	Fayetteville	87	27	Mount Mitchell	10	11	3.45	−.77	Rock House	14.48	Enfield	.67
North Dakota	34.8	+10.8	2 stations	86	1 27	Willow City	−22	8	.99	+.19	Fort Yates	3.52	3 stations	T
Ohio	50.5	+11.4	do	83	1 28	Hiram	15	10	3.21	−.27	Lock No. 23	6.19	Holgate	1.40
Oklahoma	56.6	+5.7	do	97	31	2 stations	16	1 1	2.21	+.02	Idabel	6.63	Carnegie	.47
Oregon	40.9	−.1	Lake Creek	82	26	Olive Lake	−2	16	3.20	+.45	Valsetz	15.06	Warmspring Res	.39
Pennsylvania	47.1	+9.3	Emporium	84	28	2 stations	6	1 1	3.18	−.34	Williamsport, 4 SE	5.17	Austinburg	.73
South Carolina	60.1	+5.3	Walterboro	89	31	do	27	1 1	3.73	−.26	Caesars Head	11.37	Mars Bluff Bridge	1.69
South Dakota	42.2	+10.8	2 stations	91	31	Pukwana	−13	8	2.06	+.93	Wagner	4.88	Cottonwood	.63
Tennessee														
Texas	61.1	+2.6	Rio Grande City	106	30	Muleshoe	15	8	2.42	+.43	Brenham	9.65	3 stations	.00
Utah	40.4	+2.0	St. George	87	20	Silver Lake (Brighton)	−5	25	1.68	+.23	Alta	6.84	Thompsons	.00
Virginia	52.4	+6.4	3 stations	84	1 26	Mountain Lake	17	1	2.82	−.86	Rocky Knob	5.71	Cape Henry	.65
Washington	41.9	.0	Richland	78	26	Bumping Lake	9	1 16	3.79	+.38	Forks	17.63	Trinidad	.20
West Virginia	50.7	+8.1	Cairo	88	28	Brandonville	11	12	3.62	−.31	Elizabeth	6.80	Kearneysville	1.92
Wisconsin	40.4	+10.9	Ashland	84	28	Holcombe	−9	1	1.84	+.09	New London	3.81	Grantsburg	.36
Wyoming	36.4	+6.5	Dull Center	85	27	Moran	−14	10	1.34	+.20	Grassy Lake Dam	5.09	Saratoga	T
Alaska (February)	8.3	.0	Wrangell	51	26	Allakaket	−55	4	1.74	−.17	Little Port Walter	.60	Wainwright	T
Hawaii	70.1	+1.2	2 stations	88	1 5	Haleakala R. S	39	1 8	7.84	−.24	Kukui	65.00	15 stations	.00
Puerto Rico	74.0	+.2	do	94	22	Utuado	45	19	1.98	−1.12	Mona Island	7.37	2 stations	.00

[1] Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR MARCH 1946

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
NEW ENGLAND	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°F.	°F.	°F.		°F.	°F.		°F.	°F.		°F.	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
							41.9	+9.6										72	1.65	−1.8											4.8			
Eastport	75	67	85	1,013.5	1,016.6	+3.1	37.2	+8.3	58	26	44	14	12	30	24	862	27	70	2.47	−1.4	1.33	8	9.9	sw.	32	nw.	27	12	12	7	4.6	0.1	0.0	0
Greenville, Maine	1,070	6	41	976.6	1,016.9	.....	33.2	+8.7	74	29	46	−8	1	20	46	990	23	...	1.32	−1.6	.70	5	.....	n.	.....	.....	...	9	13	9	.....	3.0	3.0	0
Portland, Maine [1]	103	5	43	1,013.2	1,017.3	+2.7	39.5	+7.7	56	29	51	3	1	28	54	790	29	74	1.07	−2.8	.37	8	9.2	n.	32	nw.	27	15	10	6	4.0	.0	.0	1
Concord [1]	289	5	45	1,006.8	1,018.0	+2.1	41.1	+12.0	85	29	56	1	1	27	49	739	28	70	1.37	−1.7	.49	9	7.9	nw.	28	nw.	23	13	8	10	4.8	T	.0	1
Burlington [1]	403	5	51	1,002.0	1,017.3	+1.4	39.8	+10.7	84	29	52	3	1	28	45	782	29	70	1.39	−.6	.83	11	10.4	s.	34	s.	4	9	7	15	5.9	T	.0	0
Boston [1]	124	33	62	1,013.2	1,018.0	+3.1	47.2	+11.6	85	29	57	24	12	37	33	561	32	64	1.50	−2.1	.58	10	11.3	sw.	31	sw.	9	13	5	13	4.9	.2	.0	0
Nantucket	12	11	59	1,017.6	1,018.0	+2.8	42.6	+7.1	63	27	49	27	2	36	24	696	36	84	2.17	−1.6	1.34	9	12.2	sw.	37	sw.	9	18	5	8	4.3	.4	.0	2
Block Island	26	11	46	1,016.9	1,018.0	+2.8	42.9	+7.5	65	29	49	26	1	36	21	687	36	80	1.88	−2.0	1.12	8	15.0	sw.	42	w.	9	15	5	11	4.5	T	.0	2
Providence [2]	159	46	60	1,012.2	1,018.3	+3.6	48.4	+12.7	79	14	59	22	1	38	31	526	32	70	1.49	−2.0	.66	8	9.6	sw.	43	sw.	9	14	7	10	4.6	.6	.0	0
Hartford [1]	159	5	44	1,018.3	1,018.6	+3.0	45.7	+10.7	82	29	59	13	1	32	...	599	32	68	1.84	−2.1	.56	7	8.7	s.	32	sw.	9	9	10	12	5.2	.0	.0	1
New Haven [1]	107	5	39	1,014.6	1,018.6	+3.0	43.6	+9.1	72	29	54	21	1	34	35	663	34	75	1.67	−2.1	.81	9	7.4	sw.	27	w.	9	15	5	11	4.8	.0	.0	0
MIDDLE ATLANTIC																																		
							50.6	+10.2										70	2.46	−1.0											5.6			
Albany [1]	97	26	40	1,014.2	1,017.6	+1.3	43.8	+14.0	85	29	57	5	1	31	43	661	30	68	1.06	−1.6	.51	8	9.5	s.	33	nw.	9	8	13	10	5.5	T	.0	0
Binghamton [2]	871	60	79	982.4	1,018.0	+1.4	45.6	+13.0	80	29	58	17	1	33	41	604	32	72	2.20	−.4	.85	10	6.2	n.	25	w.	9	7	8	16	6.4	T	.0	0
New York	314	415	454	1,006.8	1,018.3	+2.4	49.6	+11.9	75	29	58	27	1	41	29	475	33	58	3.31	−.3	1.29	11	13.6	e.	52	w.	9	12	9	10	5.0	T	.0	1
Harrisburg [1]	374	30	49	1,004.4	1,018.3	+1.4	48.8	+9.9	80	28	60	25	12	37	45	500	36	70	3.18	+.1	.89	13	7.9	se.	31	w.	9	9	6	16	6.1	T	.0	0
Philadelphia [1]	114	5	57	1,014.2	1,018.3	+1.7	51.5	+10.7	77	28	60	30	12	42	31	421	37	72	2.70	−.7	1.08	10	7.4	sw.	21	sw.	7	13	5	13	5.6	T	.0	2
Reading	323	47	306	1,006.4	1,018.6	.....	50.0	+9.4	80	28	61	25	12	39	36	464	----	...	3.26	−.3	.75	14	11.0	se.	45	w.	9	12	7	12	5.3	T	.0	1
Scranton	805	72	104	988.8	1,018.6	+2.0	47.2	+11.5	80	29	59	19	1	35	39	558	----	...	2.96	−.2	.76	9	6.4	n.	26	sw.	9	12	9	10	5.2	T	.0	0
Atlantic City	52	37	172	1,016.6	1,018.6	+2.0	47.3	+8.7	72	27	53	31	1	41	22	549	39	78	3.58	.0	2.06	7	17.4	s.	47	nw.	30	13	6	12	5.3	.0	.0	1
Trenton	190	89	107	1,011.5	1,018.6	.....	49.4	+10.3	79	28	59	27	1	40	34	488	35	66	3.53	+.1	1.04	11	9.3	ne.	32	sw.	9	13	7	11	5.2	T	.0	1
Baltimore [2]	123	100	215	1,013.9	1,018.6	+1.7	53.0	+10.7	79	5	62	32	1	44	35	377	38	69	1.89	−1.8	.64	12	9.9	ne.	41	sw.	9	12	8	11	5.1	T	.0	0
Washington [2]	112	56	100	1,016.6	1,018.6	+1.3	53.6	+11.0	82	28	64	29	12	43	42	357	38	63	1.84	−1.9	.61	13	7.6	s.	31	w.	9	9	10	12	5.7	T	.0	0
Cape Henry	18	8	54	1,017.3	1,018.0	.....	54.4	+7.8	80	26	62	34	12	47	37	331	45	76	.65	−3.2	.26	10	13.6	s.	37	ne.	19	10	7	14	5.9	.0	.0	2
Lynchburg [1]	686	4	50	992.9	1,018.0	+.4	53.0	+7.6	77	4	63	29	1	43	36	374	40	70	2.80	−.7	1.08	11	10.0	ne.	30	w.	9	9	6	16	6.5	.5	.0	0
Norfolk [2]	91	80	125	1,015.2	1,018.6	+1.7	56.4	+8.2	80	4	65	38	2	48	37	280	45	77	1.60	−2.2	.82	10	11.2	ne.	30	w.	9	9	5	17	6.2	.0	.0	2
Richmond	144	11	52	1,012.9	1,018.0	+.7	54.9	+7.7	80	4	66	31	10	44	44	320	42	72	2.39	−1.3	.85	11	8.9	ne.	30	sw.	9	11	7	13	5.8	.0	.0	2
SOUTH ATLANTIC																																		
							59.9	+6.9										74	3.22	−0.6											6.0			
Asheville	2,253	77	92	938.0	1,017.6	−.4	54.0	+9.1	78	4	64	27	10	44	40	342	42	72	4.85	+.9	.41	12	9.3	se.	26	se.	14	7	4	20	6.7	T	.0	1
Charlotte [2]	779	63	86	989.5	1,018.0	+.4	59.0	+8.6	78	4	68	33	1	49	33	201	44	71	2.78	−1.4	1.45	10	8.3	s.	26	sw.	9	8	6	17	6.3	.0	.0	5
Greensboro [1]	886	6	56	986.1	1,018.3	.....	55.3	+8.2	78	4	67	26	1	44	43	303	43	73	1.82	−2.5	.81	9	9.7	ne.	32	w.	2	8	8	15	6.2	.0	.0	3
Hatteras	11	5	50	1,017.3	1,017.6	+.3	57.6	+5.6	72	14	63	42	11	52	18	232	52	88	4.38	+1.2	2.46	13	14.0	n.	45	n.	20	5	7	19	7.1	.0	.0	6
Raleigh [1]	376	5	69	1,004.4	1,018.3	+.7	57.3	+7.1	79	26	68	30	1	47	36	258	44	73	1.87	−2.0	.65	9	8.6	sw.	27	sw.	9	7	13	11	5.5	.0	.0	2
Wilmington	72	73	107	1,015.6	1,018.0	+.4	60.6	+7.3	80	25	70	39	11	52	29	163	50	78	2.08	−1.1	.56	11	10.4	n.	30	s.	8	9	9	13	5.9	.0	.0	4
Charleston [2]	48	11	92	1,015.9	1,018.0	.0	62.6	+5.2	83	23	70	44	3	55	27	109	50	77	3.80	+.8	1.86	5	10.3	s.	30	nw.	16	13	7	11	5.1	.0	.0	4
Columbia, S. C. [2]	347	70	91	1,005.1	1,017.6	−.4	61.8	+6.6	83	23	72	36	11	52	35	140	47	69	2.81	−.6	1.09	11	8.7	s.	29	sw.	8	13	3	15	5.6	.0	.0	3
Greenville, S. C.	1,040	18	36	980.0	1,017.3	.....	57.8	+7.9	79	30	68	35	1	48	37	225	44	70	5.12	.0	1.84	10	9.7	ne.	40	ne.	30	9	6	16	6.0	.0	.0	5
Augusta [2]	182	62	77	1,010.8	1,017.3	−.7	62.5	+6.5	83	30	73	35	10	52	37	128	46	64	2.44	−1.7	.76	10	6.6	s.	25	sw.	8	11	5	15	5.5	.0	.0	3
Savannah [4]	65	73	152	1,015.9	1,018.0	.0	63.7	+6.6	85	15	74	40	3	54	34	100	50	72	3.09	+.6	1.78	8	10.7	se.	46	s.	17	11	5	15	5.5	.0	.0	4
Jacksonville [2]	43	86	110	1,016.6	1,018.3	+.3	66.2	+3.6	85	27	75	45	10	58	26	70	54	76	2.98	+.1	1.15	8	8.9	s.	32	nw.	16	10	8	13	5.5	.0	.0	5
FLORIDA PENINSULA																																		
							71.4	+1.5										79	1.78	−0.4											4.8			
Key West [2]	21	10	64	1,015.9	1,016.9	−.7	75.0	+2.4	84	27	80	62	21	70	13	0	65	78	.84	−.6	.60	3	11.4	e.	25	se.	13	14	11	6	4.3	.0	.0	1
Miami [2]	25	242	249	1,016.6	1,017.3	−1.3	71.2	+.9	82	29	76	49	21	66	22	12	62	78	2.21	−.4	1.61	5	15.8	se.	38	se.	13	10	15	6	4.8	.0	.0	4
Tampa [1]	35	6	43	1,016.6	1,018.0	−.3	68.0	+1.2	84	27	77	49	21	59	27	25	58	80	2.28	−.2	1.42	5	10.8	nw.	34	sw.	28	9	14	8	5.3	.0	.0	2
EAST GULF																																		
							62.3	+4.7										75	9.04	+3.8											5.4			
Atlanta [1]	1,173	33	72	975.3	1,017.3	−.7	59.2	+7.2	81	15	70	33	10	49	33	191	46	69	7.09	+1.7	2.92	10	11.7	nw.	42	w.	30	13	5	13	5.6	.0	.0	4
Macon [2]	370	79	87	1,003.7	1,016.9	−1.1	61.8	+5.1	84	30	73	32	10	51	40	141	47	68	5.00	.0	1.85	11	7.4	s.	42	nw.	16	11	5	15	6.0	.0	.0	5
Apalachicola	35	11	51	1,015.9	1,017.3	.....	64.0	+2.4	79	30	71	44	11	57	25	81	56	82	3.84	−.4	1.95	5	9.6	s.	27	se.	13	12	7	12	5.1	.0	.0	5
Pensacola	56	54	79	1,015.2	1,017.6	−.4	63.6	+3.3	88	30	71	43	1	56	26	91	54	80	13.22	+8.4	6.82	8	9.2	se.	32	se.	13	13	5	13	5.4	.0	.0	6
Anniston	741	9	----	.....	.....	.....	60.4	+6.3	84	30	72	31	11	49	36	170	----	...	7.24	+1.6	2.55	9	.....	sw.	.....	.....	...	17	2	12	.....	.0	.0	5
Birmingham [1]	700	5	62	991.5	1,016.6	−1.4	59.8	+6.0	86	30	72	30	11	48	38	186	47	70	5.34	.....	1.36	8	9.6	se.	42	se.	13	7	10	14	5.7	.....	.0	3
Mobile [2]	57	86	161	1,014.9	1,017.3	−.7	64.0	+4.3	90	30	73	39	1	55	27	89	53	80	14.98	+9.0	5.96	6	7.5	se.	24	s.	13	10	7	14	5.3	.0	.0	6
Montgomery [2]	218	92	105	1,009.1	1,016.9	−1.1	63.4	+5.6	86	30	73	39	1	53	32	110	50	74	9.14	+3.2	2.15	8	7.9	s.	28	e.	13	14	7	10	4.8	.0	.0	1
Meridian [2]	375	67	92	1,003.1	1,016.6	−1.0	61.6	+4.5	88	30	72	32	1	51	38	148	50	74	8.19	+3.0	3.44	9	7.5	s.	32	e.	13	12	7	12	5.3	.0	.0	7
Vicksburg [2]	247	82	102	1,006.4	1,015.6	−1.7	62.3	+3.8	88	30	72	39	11	53	30	135	50	80	5.19	−.4	1.74	9	9.6	s.	30	s.	13	12	5	14	5.5	.0	.0	5
New Orleans [4]	53	50	84	1,014.2	1,016.3	−1.0	65.2	+3.4	85	30	74	45	11	57	26	63	54	74	16.51	+11.8	6.83	8	7.3	se.	28	ne.	27	12	6	13	5.2	.0	.0	8
WEST GULF																																		
							63.1	+3.2										71	3.59	+0.6											5.1			
Shreveport [1]	249	5	64	1,005.8	1,014.6	−2.0	61.7	+4.4	91	30	72	33	9	52	38	139	50	72	5.55	+1.4	1.69	8	10.7	se.	33	e.	13	13	4	14	5.5	.0	.0	5
Fort Smith	463	57	82	996.6	1,012.9	−3.4	58.0	+5.4	92	31	68	28	9	48	44	242	47	71	3.11	+.1	1.02	10	9.5	ne.	39	sw.	15	7	7	17	6.4	.0	.0	4
Little Rock [1]	357	26	58	1,001.7	1,014.6	−2.3	59.4	+6.4	86	30	68	32	9	50	38	203	47	70	8.22	+3.6	3.16	7	10.0	sw.	34	e.	15	8	7	16	6.2	.0	.0	4
Austin [1]	605	10	41	992.9	1,014.2	.....	62.3	+1.6	96	30	75	33	9	50	38	125	48	64	2.77	+.5	1.64	7	9.9	s.	30	se.	12	17	3	11	4.6	.0	.0	5
Brownsville [1]	57	5	54	1,011.5	1,013.5	.....	69.4	+1.2	92	30	80	46	9	59	37	25	60	79	.03	−1.5	.01	3	12.3	se.	35	s.	5	12	7	12	5.3	.0	.0	0
Corpus Christi [1]	20	4	33	1,013.5	1,014.2	−1.0	67.5	+4.5	89	16	79	43	9	56	33	31	56	74	.67	.....	.60	4	12.5	s.	40	s.	14	14	8	9	4.6	.0	.0	3
Dallas [1]	512	5	45	995.3	1,013.9	.....	61.6	+4.2	96	31	73	37	9	50	40	146	48	66	2.25	−.6	.60	6	12.8	s.	38	nw.	7	12	6	13	5.2	.0	.0	2
Fort Worth [1]	679	40	56	989.5	1,013.5	−1.7	60.8	+4.1	95	31	72	37	8	50	37	165	48	66	2.80	+.5	1.10	6	13.2	s.	50	sw.	15	14	3	14	5.0	.0	.0	1
Galveston [2]	54	106	114	1,013.5	1,015.2	−1.1	64.4	+2.0	80	16	70	51	8	59	20	65	57	83	4.41	+1.7	2.80	6	11.1	s.	31	e.	12	13	11	7	4.6	.0	.0	6
Houston [2]	138	157	190	1,010.2	1,015.2	.....	65.6	+2.3	96	30	75	44	9	56	32	64	54	76	1.95	−1.6	1.30	8	11.7	se.	34	se.	12	16	5	10	4.7	.0	.0	3
Palestine	510	64	72	996.6	1,014.6	−1.3	62.4	+3.3	95	30	72	38	9	53	33	126	46	62	6.40	+2.9	2.91	7	8.9	s.	35	e.	26	12	6	13	5.2	.0	.0	4
Port Arthur [2]	34	59	134	1,013.9	1,015.2	.....	64.5	+2.6	85	30	73	41	9	56	27	76	54	80	3.82	+.6	1.88	5	14.5	s.	54	se.	12	12	11	8	4.8	.0	.0	6
San Antonio [1]	693	8	51	989.5	1,014.2	−1.0	63.0	+.2	97	30	78	34	9	48	42	111	48	64	1.75	−.1	.87	4	9.4	se.	29	se.	3	14	6	11	4.8	.0	.0	5

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR MARCH 1946—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
OHIO VALLEY AND TENNESSEE	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	*°F.*	*°F.*	*°F*		*°F*	*°F.*		*°F.*	*°F.*		*°F.*	%	*In.*	*In.*	*In.*		*Mi.*								*0-10*	*In.*	*In.*	
							54.7	+11.5										73	3.92	−0.3												6.4			
Chattanooga [1]	762	6	66	989.2	1,016.6	−1.4	57.6	+8.5	81	15	70	28	1	46	43	230	46	73	5.80	.0	1.96	7	8.5	s.	38	w.	8	9	9	13	5.9	.0	.0	4
Knoxville [1]	995	27	53	980.7	1,016.6	−1.4	57.8	+10.3	78	31	69	29	12	47	41	228	44	68	3.65	−1.4	1.43	11	8.8	sw.	37	sw.	8	9	9	13	6.0	.0	.0	5
Memphis [4]	399	5	86	1,000.3	1,014.6	−2.7	59.4	+7.5	85	31	69	31	9	50	31	194	48	74	5.49	+.2	1.54	10	9.0	s.	33	sw.	8	7	8	16	6.3	.0	.0	5
Nashville [1]	546	5	72	995.6	1,015.2	−2.4	58.7	+9.5	79	15	69	28	11	49	36	200	46	71	5.48	+.4	1.79	13	9.8	s.	43	sw.	1	7	9	15	6.4	.0	.0	6
Lexington	989	4	28	980.0	1,016.6	−1.0	54.6	+10.9	77	27	65	23	11	44	35	330	42	75	4.44	+.1	1.49	13	....	se.	....	....	....	8	7	16	6.2	T	.0	3
Louisville [1]	525	106	120	996.3	1,015.2	−2.4	56.3	+12.2	79	27	68	24	11	45	40	273	44	70	4.91	+.5	1.42	12	8.8	s.	30	sw.	8	6	9	16	6.5	T	.0	3
Evansville [1]	431	11	40	999.0	1,014.9	−2.4	56.3	+11.9	78	29	67	24	11	46	42	275	45	72	1.59	−2.6	.43	12	9.3	s.	34	se.	6	4	13	14	6.7	.0	.0	3
Indianapolis [1]	823	5	54	984.8	1,014.9	−2.4	51.9	+13.1	76	28	62	23	11	42	37	409	42	76	3.62	.....	1.54	10	10.7	se.	45	w.	9	6	6	19	6.9	1.5	.0	3
Terre Haute [2]	575	68	149	993.9	1,015.2	.....	55.2	+13.5	79	28	65	25	9	46	31	311	44	76	2.10	−1.7	.79	11	10.4	s.	33	w.	8	7	7	17	6.7	.3	.0	3
Cincinnati [2]	627	11	51	992.9	1,015.9	−1.7	55.6	+14.7	80	27	65	30	11	46	33	299	43	76	4.67	+.8	1.12	15	6.6	ne.	28	nw.	2	4	13	14	6.3	.6	.0	6
Columbus [3]	822	90	110	986.5	1,016.3	−1.0	52.6	+13.5	79	28	62	25	11	43	32	390	41	75	3.31	−.2	.80	14	10.0	s.	39	sw.	9	6	8	17	6.4	T	.0	2
Dayton [1]	1,003	6	55	979.3	1,015.9	.....	51.1	+12.4	75	28	61	22	11	41	35	433	42	77	2.62	−1.1	.89	14	11.9	s.	50	s.	6	4	11	16	6.9	.4	.0	4
Elkins [1]	1,947	4	45	948.2	1,018.0	+.4	48.0	+8.9	79	28	62	18	12	34	47	529	38	78	3.25	−.6	.71	13	7.1	se.	36	w.	9	8	6	17	6.3	T	.0	2
Parkersburg	637	77	84	993.2	1,016.6	−1.0	54.1	+11.3	81	28	66	26	10	42	40	343	39	66	5.00	+1.5	1.70	15	6.2	se.	26	sw.	9	7	8	16	6.4	T	.0	3
Pittsburgh [1]	842	39	54	986.1	1,017.3	.0	51.2	+14.0	78	28	62	22	10	41	38	431	37	67	2.53	−.5	1.19	12	10.7	s.	35	sw.	9	8	8	15	6.0	.1	.0	1
LOWER LAKES																																		
							48.3	+13.0										72	1.81	−0.9												6.0			
Buffalo [1]	768	34	96	988.8	1,017.6	+1.0	44.5	+13.2	75	29	55	20	10	34	39	633	32	70	1.61	−1.0	.43	12	13.6	sw.	49	w.	9	8	11	12	6.1	T	.0	1
Canton	448	10	61	1,000.3	1,016.6	....	40.7	+12.9	75	29	52	12	10	30	34	756	28	68	1.62	−.9	.92	8	10.0	sw.	31	w.	9	12	5	14	5.4	1.4	.0	0
Oswego	335	71	85	1,004.4	1,016.9	+.6	42.0	+10.9	73	29	51	18	1	33	35	716	31	66	1.10	−1.5	.39	9	9.7	se.	31	w.	9	10	10	11	5.6	.1	.0	0
Rochester [1]	523	5	69	998.3	1,018.0	+1.4	43.2	+13.4	78	29	55	13	1	32	39	668	30	70	.77	−2.0	.24	8	10.6	sw.	44	w.	9	7	11	13	6.2	.9	.0	0
Syracuse [1]	596	5	57	995.6	1,018.0	+1.4	43.9	+14.2	82	29	57	9	1	31	44	656	32	71	1.52	−1.8	.56	9	10.1	sw.	40	s.	2	5	12	14	6.4	1.4	.0	0
Erie [2]	714	57	81	990.9	1,016.9	+.3	46.8	+13.3	75	29	56	24	11	38	38	566	36	76	2.93	+.3	.69	13	8.6	ne.	24	sw.	9	6	13	12	5.8	.3	.0	1
Cleveland [1]	762	27	54	988.2	1,016.6	−.3	49.5	+15.0	78	28	61	20	10	38	36	478	36	71	1.70	−1.0	.54	9	11.3	se.	37	sw.	9	9	9	13	6.0	1.8	.0	2
Sandusky	629	5	67	992.9	1,015.9	−1.0	47.4	+12.3	71	13	56	22	10	38	33	546	....	....	1.70	−1.0	.43	11	9.9	e.	30	sw.	9	14	3	14	5.3	T	.0	2
Toledo [1]	628	5	47	992.6	1,015.6	−1.3	46.6	+12.8	76	28	58	19	11	36	38	572	37	77	2.49	−.1	.67	13	12.4	ne.	38	sw.	6	8	5	18	6.5	T	.0	2
Fort Wayne [1]	857	5	33	983.7	1,015.2	....	48.2	+12.1	77	28	59	20	10	37	38	524	38	78	2.35	−.9	.71	12	8.9	e.	34	w.	9	9	4	18	6.5	T	.0	3
Detroit [1]	730	5	78	989.5	1,016.6	−.3	46.0	+13.0	77	29	56	21	10	36	33	589	36	74	2.14	−.3	.53	15	9.9	e.	36	nw.	2	7	9	15	6.5	T	.0	1
UPPER LAKES																																		
							40.4	+12.6										76	2.09	0.0												6.2			
Alpena	609	5	89	993.9	1,016.6	−.3	39.0	+13.5	76	28	48	10	11	30	32	810	30	74	1.63	−.4	.69	8	11.4	nw.	29	n.	9	8	12	11	5.8	11.0	.3	0
Escanaba	612	51	72	993.6	1,016.6	−.7	37.0	+12.8	79	27	45	10	11	29	37	867	28	76	1.19	−.7	.82	8	11.7	n.	38	n.	8	11	9	11	5.8	.6	.4	1
Grand Rapids [2]	707	70	244	989.5	1,015.9	−1.0	46.0	+12.6	76	28	56	21	10	36	32	587	34	76	2.38	−.1	.60	14	13.0	ne.	48	sw.	6	9	6	16	6.1	2.2	.0	1
Lansing [2]	878	6	90	983.7	1,016.3	.....	44.6	+12.4	75	29	55	14	10	34	34	632	34	73	2.43	+.1	.85	14	9.0	ne.	27	sw.	6	8	6	17	6.6	3.8	.0	1
Marquette	734	44	73	988.5	1,016.3	−1.0	37.8	+13.0	76	28	46	10	11	30	30	845	28	76	1.12	−1.1	.48	5	8.6	n.	31	w.	6	7	8	16	6.6	2.8	1.0	1
Sault Sainte Marie [1]	614	11	52	993.6	1,016.9	.0	35.2	+14.6	75	28	45	5	11	25	39	919	26	75	1.29	−.5	.64	8	10.6	e.	39	sw.	6	8	7	16	6.3	2.1	.0	0
Chicago [1]	673	5	36	989.8	1,014.9	−2.0	47.2	+12.7	76	28	58	22	9	37	36	551	38	78	3.57	+1.0	1.23	13	9.9	e.	30	nw.	8	8	8	15	6.5	.4	.0	4
Green Bay	617	5	32	992.9	1,016.3	−1.0	39.4	+10.8	74	27	48	11	11	31	36	792	30	75	2.47	+.4	1.15	12	9.1	n.	29	sw.	6	7	6	18	6.8	5.7	.0	0
Milwaukee [1]	681	33	66	989.8	1,015.2	−1.7	41.6	+11.5	73	28	50	11	10	33	33	727	34	82	2.88	+.5	.87	15	14.7	ne.	46	sw.	6	8	8	15	6.5	5.4	.0	2
Duluth [2]	1,133	5	47	972.9	1,015.2	−2.8	35.7	+12.0	81	28	44	7	8	28	37	906	26	78	1.96	+.4	1.13	8	13.6	ne.	40	nw.	2	12	9	10	5.2	.4	1.0	2
NORTH DAKOTA																																		
							35.6	+13.8										79	0.88	0.0												6.8			
Fargo [1]	940	6	47	978.7	1,014.2	−4.4	34.7	+12.0	78	28	44	−15	8	25	36	937	30	84	.88	−.1	.39	9	12.7	s.	33	s.	20	2	13	16	7.3	4.3	.0	3
Bismarck [1]	1,677	5	43	951.9	1,013.2	−4.8	37.6	+15.7	81	27	48	7	10	27	41	848	28	75	1.25	+.4	.67	8	11.6	nw.	32	e.	29	4	14	13	6.8	5.0	.0	0
Devils Lake	1,478	11	44	959.4	1,014.2	−8.4	32.2	+12.4	79	27	42	−7	8	23	34	1,018	26	80	1.32	+.5	.56	6	9.8	s.	32	ne.	29	4	13	14	6.7	.2	.0	0
Grand Forks [1]	832	4	41	983.1	1,014.6	.....	32.4	.....	79	27	42	−6	8	23	38	1,008	28	85	.89	.....	.44	7	....	s.	....	....	....	3	12	16	.....	.1	.0	0
Williston	1,878	42	50	944.5	1,012.5	−4.8	37.8	+14.9	79	27	48	9	7	28	37	844	28	71	.08	−.6	.04	2	7.8	se.	24	e.	29	7	11	13	6.6	.5	.0	0
UPPER MISSISSIPPI																																		
							48.8	+12.9										76	3.23	+0.8												6.8			
Minneapolis-St. Paul. [1]	919	43	74	979.7	1,013.9	−3.7	42.4	+12.8	78	28	51	14	9	34	33	696	32	74	1.20	−.2	.35	11	11.6	se.	34	e.	22	5	7	19	7.0	1.5	.0	2
La Crosse [1]	714	5	29	987.8	1,014.6	−2.7	43.0	+13.2	76	28	52	9	9	34	35	680	34	78	1.94	+.3	.71	12	9.1	s.	34	w.	6	6	6	19	7.0	2.7	.0	3
Madison [2]	974	70	78	979.0	1,015.2	−2.1	43.2	+12.6	76	28	52	12	11	34	31	676	34	78	2.92	+.8	.96	15	9.6	ne.	35	ne.	8	7	9	15	6.7	9.6	.0	1
Charles City	1,015	10	51	977.0	1,014.6	−3.0	44.2	+13.5	75	28	54	11	9	35	34	645	....	....	3.78	+2.0	1.25	13	7.2	se.	23	sw.	6	7	7	17	6.6	7.8	.0	2
Moline [1]	606	6	50	991.5	1,014.2	−2.7	48.0	+13.2	78	28	59	12	10	37	40	526	39	76	4.64	+2.3	1.18	14	10.8	e.	42	e.	4	5	11	15	7.1	2.8	.0	4
Des Moines [2]	860	5	99	982.1	1,013.5	−3.8	48.5	+12.6	80	31	58	12	9	39	37	510	40	78	4.55	+2.8	.99	17	10.1	se.	33	sw.	12	5	6	20	7.1	6.1	.0	6
Dubuque	699	60	79	988.8	1,014.2	−3.1	46.0	+12.0	77	28	56	13	9	36	37	592	37	74	3.58	+1.6	1.15	15	6.2	e.	21	n.	8	5	10	16	6.7	7.9	.0	1
Burlington [1]	702	4	36	987.8	1,013.5	−3.4	49.4	+11.5	79	29	61	3	10	38	39	484	42	80	4.53	+1.8	1.24	13	10.6	s.	35	sw.	12	5	10	16	6.9	4.5	.0	4
Cairo	357	5	99	1,001.7	1,014.6	−2.7	59.1	+11.4	82	29	68	32	9	50	31	196	....	....	1.74	−2.0	.39	15	10.1	s.	31	se.	16	5	6	20	7.2	.0	.0	2
Peoria [1]	609	6	26	991.9	1,014.2	−2.7	50.1	+14.1	79	28	61	11	10	39	38	460	40	76	4.22	+1.5	1.31	15	10.8	e.	34	sw.	6	7	12	12	6.3	9.9	.0	4
Springfield, Ill. [3]	636	5	191	990.1	1,013.9	−3.0	54.6	+14.4	79	29	65	23	9	44	35	325	43	78	2.58	−.6	.93	14	12.6	s.	30	s.	6	6	10	15	6.7	.2	.0	2
St. Louis [2]	568	35	303	992.9	1,013.2	−3.7	57.2	+13.1	81	3	67	27	9	48	....	252	....	70	3.08	−.3	1.66	13	13.1	s.	34	sw.	6	6	14	11	....	.0	.0	2
MISSOURI VALLEY																																		
							50.8	+12.9										72	2.53	+0.6												6.5			
Columbia, Mo. [2]	784	6	66	984.4	1,012.9	−4.0	56.0	+13.1	85	31	67	23	9	45	37	287	42	70	2.41	−.5	.86	13	8.5	s.	29	nw.	8	10	13	8	5.5	T	.0	6
Kansas City [1]	963	39	76	976.6	1,011.9	−4.7	55.6	+12.9	89	31	66	26	10	46	37	300	43	68	2.48	+.2	.95	12	11.8	s.	43	nw.	8	6	8	17	6.6	T	.0	2
St. Joseph [2]	967	11	49	976.6	1,011.9	.....	54.0	+13.5	88	31	64	24	10	44	36	353	44	75	4.80	+2.3	1.22	16	9.8	s.	30	nw.	8	11	10	10	5.1	2.0	.0	3
Springfield, Mo [1]	1,324	5	67	965.5	1,013.2	−3.4	54.8	+11.2	86	31	65	26	9	45	36	326	44	74	1.04	−2.4	.33	5	15.2	s.	43	w.	8	4	8	19	6.9	.0	.0	5
Topeka	987	65	87	976.0	1,011.5	.....	55.4	+12.8	93	31	66	25	10	45	39	311	42	66	2.85	+.8	.98	11	10.2	s.	33	nw.	8	7	9	15	6.5	1.4	.0	5
Lincoln [2]	1,189	11	81	968.8	1,012.2	−4.4	51.5	+14.0	91	31	62	18	8	42	36	425	38	70	3.18	+1.9	1.52	9	10.8	s.	38	w.	21	7	6	18	6.8	.8	.0	6
Omaha [1]	1,105	5	68	971.9	1,011.9	−5.4	50.2	+14.1	88	31	60	18	8	40	38	462	40	73	2.71	+1.3	1.11	10	12.8	n.	37	n.	1	7	5	19	6.9	2.6	.0	4
Valentine	2,598	56	54	919.7	1,012.2	−4.7	43.6	+11.3	87	31	57	2	8	30	46	669	29	64	1.38	+.4	.84	6	10.2	w.	31	n.	16	6	12	13	6.5	2.0	.0	4
Sioux City [1]	1,138	5	40	970.9	1,012.5	−5.1	46.6	+14.5	82	31	58	6	10	35	39	576	37	77	1.81	+.7	.49	10	11.0	n.	38	s.	24	5	9	17	6.8	4.5	.0	5
Huron [1]	1,301	5	41	965.1	1,013.2	−4.8	46.7	+11.8	86	31	52	−7	8	29	47	760	33	80	2.67	+1.8	1.40	8	11.6	se.	34	s.	20	3	8	20	7.7	9.6	.0	0
NORTHERN SLOPE																																		
							40.5	+8.1										63	1.40	+0.5												6.8			
Billings [1]	3,570	16	40	886.9	1,011.9	.....	42.0	+8.0	74	27	53	17	7	31	44	711	28	62	1.35	.....	.97	6	11.9	sw.	48	n.	6	3	9	19	7.3	8.0	.0	0
Havre	2,507	11	67	921.8	1,011.5	−4.4	41.0	+13.9	76	26	52	16	7	30	36	742	27	60	.26	−.2	.11	4	10.3	sw.	33	w.	1	4	13	14	6.6	T	.0	0
Helena [1]	4,124	5	43	869.3	1,012.9	−3.4	40.0	+8.3	73	27	51	12	7	28	44	776	26	60	.56	−.2	.17	9	10.2	w.	40	nw.	6	1	10	20	7.5	1.3	.0	0
Missoula [1]	3,263	4	32	898.4	1,013.5	.....	40.7	+7.2	72	26	51	21	7	31	37	755	29	66	.76	−.1	.24	11	7.5	nw.	39	w.	29	0	8	23	8.0	2.7	.0	1
Kalispell	2,973	48	56	907.6	1,011.9	−3.7	38.4	+5.5	64	26	47	20	17	30	28	824	28	68	.55	−.4	.26	8	6.2	w.	27	sw.	22	2	9	20	7.5	1.7	.0	2
Miles City [1]	2,371	5	78	927.2	1,012.5	−4.1	41.4	.....	82	27	54	5	7	29	43	734	29	69	.80	.....	.35	6	....	se.	....	....	....	4	8	19	7.2	2.3	.0	0
Rapid City [1]	3,259	5	63	897.7	1,012.5	−3.8	41.6	+10.0	82	31	55	12	8	28	50	727	27	62	1.54	+.6	.56	8	14.9	nw.	45	nw.	16	8	9	14	6.2	12.0	.0	0
Cheyenne [1]	6,094	5	40	808.7	1,011.9	−2.7	38.2	+5.1	72	31	51	11	18	25	44	833	21	53	2.29	+1.3	1.88	8	13.3	nw.	44	nw.	1	10	9	12	5.8	17.2	.0	2
Lander	5,352	60	68	831.0	1,012.5	−3.1	39.0	+6.6	73	27	53	3	5	25	43	805	22	54	1.09	−.1	.83	7	6.1	sw.	30	sw.	29	7	14	10	5.8	12.8	.0	1
Sheridan [1]	3,790	5	38	880.1	1,012.9	.....	39.0	+7.6	74	19	52	10	23	26	49	808	26	66	3.26	+2.1	2.25	12	9.1	nw.	49	nw.	6	3	14	14	6.9	18.5	.0	0
North Platte [2]	2,821	11	51	912.3	1,012.2	−3.7	45.0	+8.4	88	31	58	6	8	32	43	620	32	70	2.29	+1.4	1.22	8	8.8	n.	32	ne.	25	6	11	14	6.5	11.5	.0	2

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR MARCH 1946—Continued

District and station	Elevation of instruments: Barometer above sea level	Thermometer above ground	Anemometer above ground	Pressure: Station	Sea level	Departure from normal	Temperature of the air: Mean	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Wind: Average hourly velocity	Prevailing direction	Maximum velocity: Miles per hour	Direction	Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
MIDDLE SLOPE	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°F.	°F.	°F		°F	°F.		°F.	°F.		°F.	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
Denver [2]	5,292	106	113	833.4	1,010.5	−3.7	51.7	+7.7										61	1.47	0.0											5.6			
Pueblo [1]	4,690	5	36	852.7	1,011.5	−1.7	46.4	+7.1	80	31	58	22	6	34	43	575	20	42	.30	−.7	.25	3	8.5	s.	32	n.	7	12	9	10	5.1	4.3	.0	2
Concordia	1,392	50	58	961.4	1,011.9	−4.4	45.1	+4.3	86	31	62	5	6	28	52	618	20	46	.45	−.1	.37	3	10.5	nw.	43	sw.	31	11	11	9	5.3	6.6	.0	0
Dodge City [1]	2,509	5	58	923.5	1,011.2	−3.7	52.6	+11.6	92	31	64	21	8	42	36	393	40	68	1.46	+.2	1.03	7	10.4	s.	31	nw.	9	11	8	12	5.8	.5	.0	3
Wichita [1]	1,358	6	64	962.8	1,011.5	−4.1	50.0	+7.2	93	31	63	17	8	36	42	476	36	68	.76	−.1	.35	6	18.8	nw.	47	n.	7	11	8	12	5.6	1.0	.0	3
Oklahoma City [2]	1,214	10	47	969.2	1,012.9	−2.3	54.0	+8.9	88	31	65	25	8	43	33	357	41	68	1.81	+.1	.99	9	16.2	nw.	50	nw.	22	10	5	16	6.2	.2	.0	5
Tulsa [1]	674	10	60	987.8	1,012.2	-----	56.8	+6.8	93	31	67	29	8	46	34	280	42	65	2.64	+.7	1.03	9	10.6	s.	26	s.	7	11	5	15	5.7	.0	.0	3
							57.1	+7.7	89	31	67	32	9	47	41	253	44	68	2.90	−.1	.91	9	13.1	s.	34	sw.	3	10	4	17	6.2	T	.0	3
SOUTHERN SLOPE																																		
							57.9	+4.1										46	0.46	−0.4											4.3			
Abilene [1]	1,738	4	59	951.6	1,012.5	−2.1	60.0	+4.8	97	31	74	32	8	47	43	192	38	51	.49	−.8	.25	6	17.1	se.	52	nw.	7	12	8	11	4.8	.0	.0	3
Amarillo [1]	3,676	5	42	885.9	1,011.2	−3.0	50.9	+5.6	92	31	67	19	8	35	48	441	31	53	.66	.0	.34	5	15.9	s.	47	n.	17	16	7	8	4.2	T	.0	2
Del Rio	960	63	71	979.0	1,012.2	−2.0	66.6	+3.1	99	30	80	40	9	53	41	51	42	47	.17	−.6	.09	2	10.5	se.	41	nw.	14	16	8	7	4.1	.0	.0	2
Roswell	3,566	75	85	890.3	1,011.5	−1.0	54.2	+2.9	91	31	70	22	8	38	47	344	22	34	.53	−.2	.47	4	10.0	s.	37	w.	14	15	9	7	4.1	.0	.0	0
SOUTHERN PLATEAU																																		
							54.6	+1.3										40	0.51	−0.3											4.2			
El Paso [1]	3,778	39	85	884.5	1,011.9	.0	55.8	+.9	87	31	70	31	8	42	40	287	27	34	.04	−.3	.04	1	13.4	w.	60	w.	15	13	11	7	4.5	T	.0	0
Albuquerque [1]	5,314	5	45	835.4	1,011.5	-----	47.9	+2.0	81	31	62	24	8	34	44	532	22	41	1.03	+.6	.71	4	11.7	n.	40	s.	14	12	8	11	5.0	6.0	.0	0
Flagstaff [2]	6,907	36	51	787.7	1,015.2	+2.3	38.8	+2.3	68	27	53	8	4	24	45	813	18	50	1.46	−.7	.38	9	----	w.	----	------	----	14	6	11	4.6	14.6	.0	0
Phoenix [2]	1,107	39	87	973.2	1,011.2	−1.7	62.0	+1.2	88	27	77	38	15	47	41	119	32	41	.02	−.7	.01	2	7.3	e.	35	sw.	28	16	8	7	4.3	.0	.0	1
Tucson [1]	2,555	5	39	924.5	1,012.5	-----	59.4	+1.7	88	31	76	34	21	43	44	196	28	37	.50	−.2	.43	3	----	se.	----	------	----	16	5	10	4.3	T	.0	0
Yuma	142	9	54	1,007.8	1,012.9	−1.0	63.6	−.5	91	10	79	39	5	48	42	81	31	38	T	−.3	T	0	6.5	w.	34	w.	3	23	7	1	2.3	.0	.0	0
MIDDLE PLATEAU																																		
							41.6	+1.2										56	1.20	+0.2											5.6			
Reno [1]	4,527	20	52	859.8	1,014.6	−1.6	40.6	+.6	73	9	56	18	5	25	53	752	24	58	.97	+.2	.43	8	9.0	s.	36	nw.	13	9	8	14	5.5	7.6	.0	0
Tonopah	6,090	9	20	810.0	1,012.2	-----	39.2	−1.3	63	26	50	17	14	28	32	801	24	58	1.87	+1.4	.71	7	----	se.	----	------	----	13	7	11	----	21.2	.0	0
Winnemucca	4,339	5	56	865.2	1,013.9	−2.4	40.8	+.8	70	26	54	18	4	27	43	751	24	57	1.66	+.7	.88	11	8.8	sw.	31	w.	6	7	10	14	6.4	8.1	.0	1
Modena	5,473	10	46	830.3	1,012.2	−2.4	39.6	+1.4	71	27	54	17	1	26	46	786	----	----	.98	.0	.42	7	10.2	sw.	38	sw.	13	17	6	8	3.8	9.8	.0	0
Salt Lake City [1]	4,227	32	58	864.5	1,013.5	−1.7	44.0	+4.0	73	27	56	24	25	32	40	649	28	57	1.43	−.4	.70	9	11.4	se.	38	s.	31	7	7	17	6.4	1.6	.0	3
Grand Junction [2]	4,602	60	68	850.7	1,014.9	+1.0	45.6	+2.0	76	31	58	22	1	33	37	599	23	48	.29	−.5	.13	5	7.5	se.	35	se.	19	9	10	12	5.7	T	.0	1
NORTHERN PLATEAU																																		
							42.5	+1.7										68	1.46	+0.3											7.3			
Baker [2]	3,471	36	54	893.0	1,014.9	−2.0	39.2	+1.6	65	27	49	16	16	30	31	797	31	70	.91	−.2	.22	11	6.6	se.	26	sw.	12	2	10	19	7.5	4.3	.0	0
Boise [1]	2,739	5	49	917.7	1,014.6	−2.3	43.8	+2.4	70	28	54	24	16	34	34	659	32	64	1.67	+.3	.36	14	12.5	se.	38	n.	6	3	10	18	7.2	T	.0	1
Pocatello [1]	4,478	5	31	861.2	1,015.9	−.4	39.2	+3.3	67	27	50	18	17	29	39	800	27	66	2.63	+1.4	.88	15	11.6	sw.	44	w.	6	4	10	17	7.0	8.1	T	2
Spokane [1]	1,929	27	42	944.5	1,013.9	−2.4	41.1	+1.4	67	26	50	23	4	32	32	738	33	73	1.69	+.5	.47	16	7.5	sw.	28	sw.	6	1	5	25	8.2	4.2	.0	1
Walla Walla	991	57	65	978.7	1,014.9	−1.7	46.8	+.5	75	26	54	32	28	39	26	569	----	----	1.44	−.2	.24	19	6.7	s.	25	w.	17	3	14	14	6.9	.0	.0	0
Yakima	1,076	58	67	974.6	1,013.9	-----	45.0	+.9	70	26	55	28	14	35	33	621	----	----	.44	+.1	.30	5	6.4	nw.	25	nw.	6	5	9	17	7.1	T	.0	0
NORTH PACIFIC COAST																																		
							45.7	0.0										78	5.13	+1.0											7.7			
North Head	211	5	55	1,007.8	1,015.6	−.7	44.9	−.3	64	9	49	35	15	40	19	625	41	86	6.34	+.8	.94	24	16.7	s.	55	s.	11	5	8	18	7.4	T	.0	0
Seattle [2]	125	90	321	1,010.5	1,015.2	−.4	46.1	−.3	65	9	52	34	27	40	24	585	38	76	2.68	−.4	.77	16	11.1	s.	34	sw.	14	4	9	18	7.5	3.0	.0	0
Tacoma	194	172	201	1,008.1	1,015.2	−.7	45.2	+1.0	64	9	52	32	28	39	27	616	----	----	4.89	+1.4	.78	19	9.5	s.	37	sw.	6	4	10	17	7.2	3.4	.0	0
Tatoosh Island	86	9	61	1,010.8	1,014.2	−.4	44.0	+1.1	52	9	48	34	27	41	11	647	40	84	10.16	+2.2	2.86	22	16.0	s.	52	s.	1	3	4	24	8.0	T	.0	0
Medford [1]	1,329	29	58	968.8	1,017.3	-----	44.8	−2.1	72	26	55	26	23	34	40	620	36	73	1.49	.0	.36	15	----	n.	----	------	----	4	6	21	7.8	.0	.0	0
Portland, Oreg. [2]	154	68	106	1,010.5	1,016.3	−.3	47.6	+.7	68	26	54	33	15	41	29	541	38	76	5.68	+1.8	1.47	22	6.7	se.	18	sw.	11	1	4	26	8.2	1.5	.0	0
Roseburg	510	45	76	998.3	1,017.3	.0	47.2	+.1	77	9	56	32	14	38	39	553	38	74	4.64	+1.4	1.67	17	4.1	sw.	21	sw.	26	1	7	23	8.1	.0	.0	0
MIDDLE PACIFIC COAST																																		
							51.8	−0.8										72	2.66	−0.9											6.2			
Eureka	60	72	88	1,016.9	1,019.3	+1.3	47.2	−1.1	63	26	53	36	23	41	21	550	41	78	4.68	−.61	.44	17	7.5	n.	25	n.	3	1	9	21	7.8	.0	.0	0
Red Bluff [1]	353	5	26	1,003.1	1,015.9	-----	53.2	−.4	80	8	63	35	11	43	40	363	38	60	1.68	−1.6	.73	9	8.7	nw.	33	se.	12	9	4	18	6.5	.0	.0	0
Sacramento	66	92	115	1,013.9	1,016.3	−.6	53.6	−.7	78	26	64	38	14	43	31	351	42	71	1.94	−.6	.68	10	8.0	s.	27	nw.	3	10	11	10	5.2	.0	.0	2
San Francisco [2]	155	112	132	1,011.5	1,017.3	−.7	53.2	−1.0	73	8	59	42	19	47	22	366	44	78	2.34	−.8	.77	10	8.6	w.	22	w.	13	9	9	13	5.5	.0	.0	0
SOUTH PACIFIC COAST																																		
							56.4	+0.1										65	2.78	+0.8											4.9			
Fresno [1]	327	5	34	1,003.7	1,015.9	−.4	54.8	+.4	86	9	68	34	14	41	41	312	40	63	2.01	+.4	1.34	7	6.9	nw.	35	nw.	3	12	8	11	5.0	.0	.0	1
Los Angeles	338	223	250	1,003.4	1,015.9	−.7	57.4	−.1	85	9	67	42	20	48	33	248	42	61	3.66	+.9	1.54	7	8.2	se.	34	nw.	3	14	9	8	4.4	.0	.0	0
San Diego [1]	87	20	55	1,012.9	1,016.3	−.3	57.1	+.1	78	9	65	43	15	49	29	243	47	72	2.67	+1.0	1.46	9	7.9	s.	32	s.	30	11	12	8	5.2	.0	.0	0
ALASKA																																		
Anchorage [1]	132	6	44	996.3	1,001.4	-----	15.9	−7.8	45	4	27	−16	15	4	37	1,521	9	70	.32	−.2	.17	9	6.9	n.	36	s.	31	7	10	14	6.4	5.8	11.2	0
Fairbanks [1]	455	5	63	988.2	1,006.4	-----	1.4	−8.0	41	30	16	−34	16	−13	43	1,972	−5	72	.29	−.4	.13	7	4.7	s.	37	sw.	31	7	6	18	6.3	4.4	14.9	0
Juneau [1]	80	6	30	1,001.0	1,004.1	-----	34.0	------	42	6	38	17	30	30	20	967	29	81	3.50	------	.72	19	10.2	se.	34	se.	20	2	2	27	8.5	18.6	.0	0
Bethel	28	5	31	1,005.1	1,006.4	-----	−3.8	−14.9	38	3	8	−32	19	−15	44	2,131	−5	89	.50	−.4	.30	10	----	----	36	------	3	12	7	12	5.3	2.8	9.6	0
Cordova	45	5	32	----------	----------	-----	27.4	------	44	24	36	2	21	19	34	1,166	24	83	5.39	------	1.14	24	----	e.	----	------	----	3	6	22	7.9	36.2	12.5	0
Ketchikan	25	69	90	1,005.8	1,006.4	-----	37.4	−.4	48	17	42	28	28	33	14	854	33	84	16.67	+4.5	2.45	21	7.3	se.	30	se.	23	1	4	26	8.5	17.0	.0	0
Kotzebue	20	5	31	1,007.5	1,008.1	-----	−9.4	−8.1	28	30	−1	−34	15	−18	28	2,305	−10	90	.28	+.1	-----	12	10.5	se.	49	se.	29	6	7	18	7.0	4.0	16.7	0
McGrath	341	5	31	992.6	1,006.1	-----	−3.3	−9.0	36	30	12	−44	15	−16	51	2,119	−5	88	1.71	+.6	-----	13	----	w.	22	nw.	30	6	7	18	6.8	21.0	46.1	0
HAWAII																																		
Honolulu	38	86	100	1.018.0	1,019.3	-----	73.4	+2.0	83	2	77	67	26	70	13	0	----	----	1.81	−1.4	.36	24	13.3	e.	30	e.	17	4	14	13	6.3	.0	.0	0

[1] Data are airport records.
[2] Barometric data (adjusted to old city elevation) and hygrometric data from airport; otherwise city office records.
[3] Observations taken hourly.
[4] Pressure (adjusted to old city elevation), temperature, and hygrometric data from airport; otherwise city office records.
[5] Temperature and precipitation from city records, other data from airport.

NOTE.—Except as indicated by notes [1], [2], [4], and [5], data in table are city office records.

SEVERE LOCAL STORMS FOR MARCH 1946

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
	Mar. 1946						
Billings, Mont.	1	2-5:25 p. m.				Wind and dust	Visibility reduced to 2 miles.
Nebraska, northern portion of State.	5-7					Snow and wind	8 to 10 inches of snow in some localities drifted considerably and caused some interruption to highway traffic.
Neenah, Wis., 3 miles southwest.	6	P. m.			$7,000	Straight-line wind	11 cattle killed; several others injured. Storm lasted about 2 minutes.
Wisconsin, southern portion.	8					Heavy snow and high wind.	Storm began with rain and sleet in the extreme southeast. Snow depths were 6 to 17 inches on the level; drifts much deeper. Intercity and city motor traffic stalled for several hours; trains late. Many persons, including school children, stranded overnight. City residents marooned downtown. In Milwaukee the traffic tie-up was the worst of record.
Las Vegas and Raton, N. Mex.	14-15					Snow and wind	24 inches of snow blocked all traffic in this vicinity. Over the southeastern portion of the State, wind velocities of 50 and 60 miles an hour reduced horizontal visibility to less than a city block because of blowing sand and dust.
Wyoming, southeastern portion of State.	14-15					Snow	Snowfall up to 15 inches occurred at several places.
Forest to Wayne to Lauderdale Counties, Miss.	15	9:25-10 p. m.	400-900		275,000	Tornado and electrical.	Series of tornadoes reported. Damage to buildings and timber; loss in livestock, fertilizer, tools, and stored corn after lightning struck.
Alabama, west-central portion.	16	12 midnight-4 a. m.	[1] 60	10	100,000	Thundersqualls	Storm from Mississippi into Alabama at midnight on the 15-16. There were 51 houses and 27 buildings destroyed, and 77 houses and 17 buildings damaged. Houses were rural negro dwellings. Roofs were blown off and trees uprooted.
Abbeville, S. C.	16	11 a. m.				Heavy hail	Windowpanes broken; blooming flowers damaged.
Newberry, Abbeville, and Kershaw Counties, S. C., and vicinities.	16				4,500	Thundersquall	Property damaged; loss in livestock.
Federal Point, Hastings, and Elkton, Fla.	17	4-4:30 p. m.	[1] 4		1,000	Hail	Loss in potato and cabbage crops; path 10 miles long.
Marion and Dillon Counties, S. C.	18	P. m.			30,000	Heavy hail	Property damage, $25,000; crop loss, $5,000.
Wyoming	20-21					Snow	Many stations reported snowfall of from 12 to 17 inches. Secondary roads in the northern portion of the State closed.
Wichita, Kans., and vicinity.	22	7-9 p. m.			15,000	Wind and hail	Wind damage chiefly to parked airplanes; loss from hail small; path 5 miles long.
Wynona, Okla.	22	8 p. m.	440	0	150,000	Tornado	Storm from the southwest, preceded by rain and hail. Extensive damage to buildings, power plant, and farm equipment. No injuries reported.
Concordia, Kans.	25	5 p. m.	[1] 3		1,000	Heavy hail	Ground covered with hailstones, some 6 inches in circumference. Numerous windows broken; some chickens killed; crop loss small; path 8 miles long.
Pottawatomie County, Kans.	25	7-9 p. m.	[1] 10		2,000	do	Property damaged; path 30 miles long.
Grand Cane, La.	26	4:30-5 p. m.	[1] 1			do	Damage to roofs and miscellaneous property; loss in truck. Considerable damage, not estimated, principally within town limits of Grand Cane; path 6 miles long.
Houston, Fla.	27	1 p. m.	200	0	10,000	Tornado	Top of a schoolhouse blown off; several barns demolished; crop loss light; property damage estimated at $10,000.
Los Angeles, Calif.	30					Wind and rain	High seas caused most vessels in Los Angeles Harbor to remain safely at anchor. Fishing operations were halted. While some damage was reported to citrus fruit crops, avocados, and winter vegetables throughout southern California, agricultural agents said the rain generally improved prospects for many crops. The day before this storm, slippery streets and decreased visibility caused scores of minor auto accidents: receiving hospitals were jammed with injured persons.

[1] Miles instead of yards.

SOLAR RADIATION AND SUNSPOT DATA FOR MARCH 1946

[Solar Radiation Investigations Section, I. F. HAND, in charge]

SOLAR RADIATION OBSERVATIONS

Explanations of the tables and references to descriptions of instruments, stations, and methods of observations and to summaries of data, are given in the January 1944 MONTHLY WEATHER REVIEW, page 43. A list of the pyrheliometric stations is given on page 45 of the same REVIEW.

TABLE 1.—*Solar radiation intensities during March 1946*

[Gram calories per minute per square centimeter of normal surface]

Date	Sun's zenith distance: 7:30 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p.m.
	75th mer. time	Air mass: A.M. 5.0	4.0	3.0	2.0	*1.0	P.M. 2.0	3.0	4.0	5.0	75th mer. time
	e.										e.
MADISON, WIS.											
	mb.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Mar. 2	5.1	0.81	0.98	1.07	1.26	1.52	------	------	------	------	4.8
Mar. 7	4.8	.85	1.01	1.14	1.33	------	------	------	------	------	5.8
Mar. 9	1.7	.90	1.07	1.19	1.35	1.54	------	------	------	------	3.0
Mar. 11	1.7	------	.61	.76	1.01	1.33	------	------	------	------	4.4
Mar. 19	5.3	.61	.73	.87	1.03	1.33	------	------	------	------	8.4
Mar. 20	5.3	.48	.66	.83	.98	1.31	------	------	------	------	7.8
Mar. 23	5.1	------	------	------	------	------	------	------	------	------	5.8
Mar. 25	7.2	------	.38	.61	.95	1.34	------	------	------	------	12.7
Mar. 27	6.4	------	.83	.98	1.18	1.41	------	------	------	------	9.4
Mar. 28	7.4	.68	.75	.84	1.06	1.36	------	------	------	------	8.1
Mar. 30	5.8	.52	.70	.86	------	------	------	------	------	------	5.6
Means	------	.69	.77	.92	1.13	1.39	------	------	------	------	------
Departures	------	−.12	−.18	−.18	−.15	−.12	------	------	------	------	------
LINCOLN, NEBR.											
Mar. 2	4.6	0.81	0.94	1.09	1.22	1.47	1.17	------	------	------	5.1
Mar. 6	5.6	------	------	------	------	------	------	1.14	1.07	0.96	6.6
Mar. 8	2.7	------	------	------	1.40	1.56	1.34	1.16	1.03	.94	3.2
Mar. 19	7.8	.66	.79	.92	------	1.44	1.18	.96	.79	.70	8.4
Mar. 26	8.1	------	.75	.90	1.11	1.42	1.14	.94	.81	.70	7.4
Mar. 27	6.1	.77	.88	1.03	1.20	1.42	1.14	.99	.84	.73	8.1
Mar. 28	8.1	------	.75	.90	1.14	1.39	------	------	------	------	12.3
Means	------	.75	.82	.97	1.21	1.45	1.19	1.04	.91	.81	------
Departures	------	−.08	−.11	−.11	−.06	−.05	−.07	−.04	−.02	.00	------
ALBUQUERQUE, N. MEX.											
Mar. 1	1.8	------	1.08	1.21	1.38	1.66	1.33	1.13	1.02	0.88	2.0
Mar. 2	2.1	------	1.11	------	------	------	------	------	------	------	2.1
Mar. 4	2.7	1.02	1.03	1.12	------	------	------	------	------	------	5.0
Mar. 6	2.6	------	1.04	------	1.30	1.59	------	------	------	1.06	2.4
Mar. 7	3.4	------	------	1.20	1.43	1.60	1.44	1.08	1.19	1.10	1.4
Mar. 8	2.6	1.05	1.19	1.29	1.44	1.58	1.41	1.29	1.18	------	2.1
Mar. 9	2.6	.82	.95	1.09	1.31	1.41	1.30	1.09	------	------	1.8
Mar. 10	2.3	.95	1.05	1.18	1.34	1.34	.90	.78	.52	.57	2.9
Mar. 11	3.2	------	------	.92	.69	------	------	------	------	------	3.3
Mar. 12	4.4	.62	------	.88	------	1.34	1.26	1.08	.92	.78	3.0
Mar. 13	3.2	.43	.81	.98	.91	------	.44	------	------	------	3.4
Mar. 14	2.5	.36	.60	.87	1.15	------	------	------	------	------	4.4
Mar. 15	4.6	------	------	------	------	------	1.13	1.04	.82	.68	4.7
Mar. 16	2.6	.98	1.10	1.21	1.36	1.45	1.32	1.16	1.08	.98	1.8

TABLE 1.—*Solar radiation intensities during March 1946*—Con.

Date	Sun's zenith distance: 7:20 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p.m.
	75th mer. time	Air mass: A.M. 5.0	4.0	3.0	2.0	*1.0	P.M. 2.0	3.0	4.0	5.0	75th mer. time
	e.										e.
ALBUQUERQUE, N. MEX.—Continued											
Mar. 17	1.8	1.06	1.16	1.28	1.42	1.50	1.39	1.26	1.15	1.08	2.7
Mar. 18	2.9	.94	1.03	1.18	1.33	1.59	1.39	1.00	.81	.75	3.2
Mar. 19	4.0	------	.47	.38	1.00	------	------	------	------	------	4.8
Mar. 21	3.2	1.02	1.15	1.21	1.21	1.30	------	------	------	------	2.2
Means	------	.84	.98	1.07	1.23	1.49	1.21	1.11	.97	.88	------
Departures	------	−.13	−.10	−.10	−.09	−.11	−.14	−.13	−.17	−.19	------
BLUE HILL, MASS.											
Mar. 1	2.7	0.94	1.04	1.14	1.30	------	1.25	1.08	0.92	0.79	4.0
Mar. 3	6.6	.52	------	------	1.25	------	1.16	.91	.82	.72	5.2
Mar. 4	3.7	------	.85	1.00	1.18	------	.85	.51	.34	------	5.3
Mar. 6	6.5	------	------	.45	.75	------	.86	.69	.53	.42	7.3
Mar. 10	3.2	.90	------	1.16	1.33	1.60	1.34	1.16	.99	.90	2.5
Mar. 12	3.0	.87	.96	1.09	1.22	1.43	1.09	.87	.70	.55	4.0
Mar. 13	6.3	------	------	.95	1.10	------	------	------	------	------	5.8
Mar. 14	7.6	------	------	.52	.81	------	.82	.62	------	------	9.2
Mar. 16	5.2	.82	.97	1.09	1.25	1.39	.87	.72	.57	.39	4.9
Mar. 17	3.4	------	------	------	------	------	------	.56	------	------	5.6
Mar. 18	6.4	------	------	------	1.31	------	1.38	1.20	1.08	.98	3.6
Mar. 20	5.6	.85	.98	1.12	1.26	------	------	.85	.72	.65	2.7
Mar. 21	3.7	.92	1.01	1.14	1.23	1.48	------	.92	.79	.69	3.8
Mar. 22	2.6	.95	1.03	1.16	1.31	1.49	1.24	1.02	------	.67	4.4
Mar. 23	3.0	.98	1.06	1.19	1.33	1.52	1.28	1.10	.95	.83	2.0
Mar. 24	2.4	.84	.95	1.11	1.25	1.43	1.22	.97	.81	.72	3.2
Mar. 27	6.0	.86	1.00	1.14	------	------	------	------	------	------	3.8
Mar. 28	6.6	.59	.68	.79	1.02	1.35	1.03	.82	.63	.49	7.6
Mar. 29	8.3	.64	.76	------	------	------	------	------	------	------	7.1
Mar. 31	2.9	.84	.95	1.08	------	1.50	------	1.11	1.02	.98	1.6
Means	------	.82	.94	1.01	1.18	1.47	1.11	.89	.78	.70	------
Departures	------	−.06	−.02	−.07	−.05	+.04	−.12	−.15	−.15	−.12	------
BOSTON, MASS.											
Mar. 1	2.7	------	------	0.96	1.18	------	1.20	1.01	------	------	3.1
Mar. 6	6.9	------	------	------	.71	------	------	------	------	------	7.4
Mar. 12	3.3	------	------	------	------	------	1.04	------	------	------	3.7
Mar. 13	6.4	------	------	------	1.11	------	------	------	------	------	6.4
Mar. 14	7.8	------	------	------	.75	------	.86	------	------	------	9.8
Mar. 18	6.6	------	------	------	1.24	------	1.27	1.15	0.96	------	6.6
Mar. 20	5.3	0.38	0.39	.61	.56	------	1.04	.72	.64	------	4.4
Mar. 21	5.1	------	------	------	1.23	------	1.07	.80	.61	------	6.9
Mar. 22	3.7	.46	.68	.94	1.20	------	1.16	.94	------	------	4.4
Mar. 26	8.4	.41	.52	.66	------	------	------	------	------	------	9.4
Mar. 27	6.9	.70	.88	1.13	1.29	------	------	------	------	------	5.6
Mar. 28	7.4	.57	.58	.68	.84	------	1.04	.76	.61	------	8.1
Means	------	.50	.61	.83	1.01	------	1.08	.90	.70	------	------
Departures	------	−.02	−.01	+.02	+.02	------	+.01	+.01	.00	------	------
Ratio, Boston/Blue Hill, on comparable dates											
	------	0.65	0.68	0.80	0.88	------	0.96	0.92	0.88	------	------

*Extrapolated.

TABLE 2.—*Daily totals and weekly means of solar radiation (direct+diffuse) received on a horizontal surface*

[Gram calories per square centimeter]

Date	Washington, D. C.	Madison, Wis.	Lincoln, Nebr.	East Lansing, Mich.	New York, N. Y.	Fresno, Calif.	Fairbanks, Alaska	Columbia, Mo.	Boston, Mass.	Nashville, Tenn.	Twin Falls, Idaho	La Jolla, Calif.	Riverside, Calif.	Blue Hill, Mass.	Newport, R. I.	State College, Pa.	Put-in-Bay, Ohio	Davis, Calif.	Boulder, Colo.	Tooele, Utah	New Orleans, La.	Toronto, Canada	Ithaca, N. Y.
1946	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*
Feb. 26	325	102	271	50	106	431	------	46	125	146	402	401	459	142	99	91	60	424	360	386	309	17	------
Feb. 27	297	384	418	136	109	375	------	434	33	204	173	412	441	47	125	37	43	208	413	220	167	72	------
Feb. 28	238	303	398	314	230	452	------	450	199	492	211	400	429	240	237	344	269	499	277	274	486	260	------
Mar. 1	382	53	300	239	342	432	------	86	378	492	386	296	434	416	425	334	278	530	395	369	480	207	------
Mar. 2	28	419	420	349	36	427	------	469	183	484	216	206	299	172	175	26	283	405	468	248	499	137	------
Mar. 3	434	402	340	339	389	461	------	423	382	400	181	313	409	406	414	382	320	549	310	90	------	360	------
Mar. 4	356	75	83	126	260	458	------	81	335	438	430	442	452	363	382	347	137	558	37	367	363	236	204
Means	294	248	319	222	211	434	141	284	234	380	285	353	417	255	265	223	198	453	323	279	------	184	------
Departures	+17	−23	+13	+8	−46	+76	------	+13	−2	+118	−3	−28	+66	−33	−20	−10	−34	+99	−9	−97	------	------	------
Mar. 5	315	38	16	26	155	410	------	262	294	342	405	442	485	307	243	226	127	423	110	257	327	39	56
Mar. 6	378	194	358	88	213	434	------	337	326	144	316	423	455	350	354	306	121	508	428	179	263	194	314
Mar. 7	127	331	151	388	160	420	------	407	246	451	400	451	462	253	259	40	334	549	362	410	310	330	25
Mar. 8	35	30	487	99	119	436	------	39	270	206	408	469	497	278	266	67	153	549	458	547	344	245	182
Mar. 9	421	474	223	245	212	459	------	252	243	426	433	482	504	204	364	92	60	557	480	574	532	84	61
Mar. 10	445	398	429	332	438	459	------	511	439	134	400	297	492	477	508	444	449	378	496	487	------	359	480
Mar. 11	399	451	417	416	302	467	------	489	260	492	393	349	391	211	267	462	372	561	187	508	------	413	303
Means	303	274	297	228	228	441	150	328	297	314	394	416	469	297	323	234	231	504	360	423	------	238	203
Departures	−7	−23	−29	0	−44	+39	------	+27	+36	+30	+44	−6	+51	0	+21	−25	−20	+115	−5	+6	------	------	−50
Mar. 12	445	343	160	341	338	466	------	356	400	458	72	455	528	465	462	415	348	129	479	513	------	251	394
Mar. 13	419	253	377	176	310	126	------	307	353	315	65	----	167	414	419	325	222	482	272	187	68	115	295
Mar. 14	370	69	114	72	333	516	------	97	356	163	410	470	564	401	386	324	146	572	359	276	------	189	300
Mar. 15	312	75	115	164	38	482	------	292	114	467	180	450	532	115	127	190	110	480	219	495	232	332	69
Mar. 16	141	69	132	242	452	487	------	307	401	393	480	460	529	458	495	169	246	591	438	618	349	400	456
Mar. 17	37	54	34	111	103	472	------	147	265	405	394	427	459	260	294	76	224	416	535	570	530	194	204
Mar. 18	46	90	36	73	91	244	------	41	440	129	321	401	344	486	428	45	110	232	535	599	------	126	271
Means	253	136	138	168	238	399	232	221	333	333	274	380	446	372	373	221	201	415	405	468	------	230	284
Departures	−65	−174	−200	−87	−39	−4	------	−97	+48	+31	−54	−5	+57	+72	+67	−63	−84	+8	+19	+8	------	------	+45
Mar. 19	86	451	445	407	248	334	------	146	408	22	165	299	219	490	461	295	279	205	362	472	542	361	492
Mar. 20	521	451	385	427	405	403	------	332	374	373	92	209	268	472	505	518	410	122	326	367	423	352	520
Mar. 21	502	217	385	342	427	281	------	412	410	500	465	400	145	490	531	501	300	236	263	476	470	321	525
Mar. 22	493	91	396	74	316	554	------	404	452	398	374	524	557	525	543	263	256	548	371	665	384	63	308
Mar. 23	505	373	417	455	509	555	------	406	503	226	328	457	552	544	568	546	416	496	547	566	431	418	557
Mar. 24	47	259	526	251	283	502	------	498	480	260	262	264	214	535	534	144	80	456	321	389	216	246	373
Mar. 25	362	442	148	362	244	511	------	433	82	71	511	542	600	106	130	372	351	639	359	636	------	125	205
Means	359	326	386	332	347	448	264	376	387	264	314	385	365	452	468	377	299	386	364	516	------	269	426
Departures	+16	−7	+7	+33	+8	+2	------	+38	+65	−58	−80	−61	−34	+77	+63	+49	−26	−60	−56	+32	------	------	+112
Mar. 26	219	372	540	197	177	560	------	416	376	228	499	519	568	440	425	99	195	620	582	504	80	263	275
Mar. 27	474	503	543	447	534	443	------	562	500	258	373	455	529	538	537	549	342	572	566	466	------	436	558
Mar. 28	479	497	540	440	426	292	------	485	453	72	468	464	436	513	517	516	473	232	298	418	372	422	524
Mar. 29	131	376	356	365	381	160	------	488	444	286	234	387	298	504	480	350	257	378	615	477	575	327	401
Mar. 30	124	514	319	487	227	241	------	524	331	446	399	179	129	346	316	351	439	484	542	277	592	481	463
Mar. 31	584	459	526	324	557	351	------	541	531	523	161	455	474	576	581	591	403	295	613	244	------	397	535
Apr. 1	378	387	457	298	150	599	------	------	424	455	435	511	480	412	385	220	251	608	567	192	------	61	144
Means	341	444	469	365	350	378	264	------	437	324	367	424	416	476	463	382	337	456	541	368	------	341	414
Depatures	−13	+86	+87	+43	+20	−88	------	------	+73	−44	−2	−61	+3	+86	+80	+15	−19	−46	+84	−137	------	------	+106

ACCUMULATED DEPARTURES ON APRIL 1, 1946

	−707	−1,379	−1,211	−434	−1,316	+1,925	------	------	+1,694	+763	−70	−805	+3,612	+1,232	+1,141	+497	------	+4,088	+1,540	−2,009	------	------	------

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1946

By LUCY T. DAY

[Equatorial Division, U. S. Naval Observatory]

[Communicated by the Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day, under Mount Wilson group number, longitude, latitude, area of spot or group, and spot count are included respectively: number of groups, assumed longitude of center of the disk, assumed latitude of center of the disk, total areas of spots and groups, and total spot count.

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	*h m*		°	°	°	°				
Mar. 1	10 36	7982	−82	260	−22	82	145	1	G	U. S. Naval.
		7980	−74	268	−20	75	291	2		
		7978	−70	272	+29	78	194	4		
		7978	−63	279	+27	70	776	8		
		7978	−62	280	+26	68	970	14		
		7979	−50	292	+22	57	194	5		
		7978	−45	297	+25	56	36	1		
		7979	−43	299	+21	51	48	2		
		7977	−31	311	−21	33	48	6		
		7977	−26	316	−22	28	242	5		
		7975	−22	320	+23	28	6	1		
		7973	+7	349	+24	33	24	2		
		7970	+13	355	+22	32	48	4		
		7968	+30	12	−19	31	170	2		
		7981	+58	40	+22	63	97	1		
		7963	+85	67	−13	85	97	1		
		(11)		(342)	(−7)		3,386	59		
2	14 46	7982	−70	257	−22	71	97	1	F	Mt. Wilson.
		7980	−62	265	−20	63	73	1		
		7980	−58	269	−18	58	242	2		
		7978	−55	272	+31	65	194	1		
		7978	−48	279	+29	59	1,697	15		
		7978	−41	286	+25	52	24	1		
		7979	−34	293	+24	46	61	3		
		7978	−29	298	+26	43	48	1		
		7978	−26	301	+25	41	73	18		
		7979	−26	301	+23	40	48	2		
		7977	−9	318	−20	16	194	5		
		7970	+36	3	+27	48	145	7		
		7970	+38	5	+25	50	170	10		
		7968	+48	15	−19	48	194	1		
		(7)		(327)	(−7)		3,260	68		
3	11 4	7982	−60	256	−23	60	73	1	P	Do.
		7980	−52	264	−20	52	61	1		
		7980	−48	268	−18	48	194	1		
		7978	−47	269	+30	58	170	1		
		7978	−40	276	+31	54	1,503	10		
		7978	−34	282	+27	47	24	1		
		7979	−25	291	+23	39	73	2		
		7978	−21	295	+26	38	61	1		
		7979	−18	298	+23	35	61	1		
		7978	−15	301	+26	36	61	4		
		7977	0	316	−20	13	194	1		
		7970	+41	357	+25	52	291	8		
		7970	+48	4	+24	56	121	3		
		7968	+58	14	−19	58	170	1		
		(7)		(316)	(−7)		3,057	36		
4	11 21	7982	−47	255	−23	48	48	1	G	U. S. Naval.
		7980	−39	263	−21	41	61	1		
		7980	−33	269	−20	35	218	1		
		7978	−31	271	+29	46	218	2		
		7978	−25	277	+29	43	1,454	4		
		7978	−19	283	+27	38	291	8		
		7979	−10	292	+21	30	97	4		
		7978	−5	297	+24	32	61	1		
		7978	0	302	+24	31	61	1		
		7977	+9	311	−21	17	48	1		
		7977	+13	315	−21	19	194	2		
		7975	+17	319	+23	34	24	5		
		7970	+54	356	+25	62	436	7		
		7970	+60	2	+24	66	61	4		
		7968	+70	12	−19	70	194	1		
		(8)		(302)	(−7)		3,466	43		
5	11 10	7983	−45	244	+20	53	12	1	G	Do.
		7982	−31	258	−24	35	12	2		
		7980	−25	264	−21	28	121	8		
		7980	−21	268	−20	25	206	1		
		7978	−19	270	+29	41	218	4		
		7978	−13	276	+29	38	1,164	7		
		7978	−7	282	+27	36	242	5		
		7979	+3	292	+21	29	97	8		
		7978	+8	297	+25	34	12	3		
		7977	+27	316	−21	30	73	11		
		7975	+30	319	+25	43	12	6		
		7970	+68	357	+25	72	339	5		
		7970	+73	2	+24	78	145	2		
		7968	+83	12	−19	83	194	1		
		(9)		(289)	(−7)		2,847	64		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	*h m*		°	°	°	°				
Mar. 6	11 12	7984	−45	231	−24	47	6	4	G	U. S. Naval.
		7983	−35	241	+20	44	24	1		
		7983	−31	245	+19	40	12	4		
		7980	−13	263	−21	19	73	18		
		7980	−8	268	−19	15	194	1		
		7978	−7	269	+29	37	218	7		
		7980	−3	273	−20	13	12	4		
		7978	+1	277	+30	37	1,164	15		
		7978	+7	283	+27	35	121	7		
		7979	+17	293	+21	33	48	6		
		7979	+18	294	+19	32	24	7		
		7977	+40	316	−21	42	73	12		
		7970	+82	358	+24	85	339	3		
		(7)		(276)	(−7)		2,308	89		
7	11 3	7986	−84	179	−28	84	97	1	G	Mt. Wilson.
		7985	−44	219	−18	45	12	1		
		7983	−21	242	+20	35	12	1		
		7983	−15	248	+20	31	6	2		
		7980	+3	266	−22	15	24	8		
		7980	+5	268	−19	13	194	1		
		7978	+7	270	+30	38	194	7		
		7978	+14	277	+31	41	1,212	17		
		7978	+20	283	+27	40	145	11		
		7978	+31	294	+27	45	12	1		
		7979	+31	294	+21	43	24	3		
		7977	+54	317	−21	55	73	4		
		(7)		(263)	(−7)		2,005	57		
8	10 58	7986	−80	170	−28	80	48	1	G	Do.
		7986	−70	180	−28	71	145	1		
		7987	−15	235	−21	20	12	3		
		7982	+1	251	−26	19	6	1		
		7980	+13	263	−22	19	48	13		
		7980	+19	269	−19	23	194	1		
		7978	+19	269	+28	40	170	5		
		7978	+26	276	+29	44	1,115	9		
		7978	+28	278	+31	47	242	8		
		7977	+68	318	−22	68	48	4		
		(6)		(250)	(−7)		2,028	46		
9	12 4	7986	−61	175	−30	62	73	1	F	U. S. Naval.
		7988	−59	177	+3	60	6	3		
		7986	−58	178	−29	59	194	2		
		7987	−3	233	−18	13	6	1		
		7982	+10	246	−26	21	24	1		
		7982	+15	251	−25	24	24	5		
		7980	+29	265	−22	32	97	8		
		7980	+31	267	−19	32	194	1		
		7978	+31	267	+29	47	61	2		
		7978	+39	275	+29	52	1,018	6		
		7978	+47	283	+27	57	12	1		
		7977	+80	316	−20	86	48	1		
		(7)		(236)	(−7)		1,757	32		
10	10 37	7991	−83	141	−37	83	97	1	G	Mt. Wilson.
		7986	−51	173	−29	54	48	2		
		7986	−45	179	−28	47	97	3		
		7990	+16	240	+22	32	12	4		
		7987	+17	241	−19	21	12	1		
		7982	+24	248	−26	30	48	14		
		7980	+39	263	−23	41	12	8		
		7989	+40	264	−28	43	12	4		
		7980	+45	269	−19	46	170	1		
		7978	+45	269	+29	55	48	2		
		7978	+52	276	+29	62	1,018	15		
		(8)		(224)	(−7)		1,374	55		
11	10 43	7991	−85	125	−40	85	145	4	F	U. S. Naval.
		7991	−70	140	−37	70	242	3		
		7986	−37	173	−29	42	36	2		
		7986	−32	178	−28	37	97	1		
		7992	+35	245	+20	44	36	1		
		7982	+35	245	−25	38	48	1		
		7992	+37	247	+18	45	36	1		
		7982	+39	249	−24	42	97	4		
		7980	+58	268	−19	58	145	1		
		7978	+58	268	+27	65	73	4		
		7978	+64	274	+29	71	776	4		
		(6)		(210)	(−7)		1,731	26		
12	10 47	7991	−71	126	−40	71	73	4	F	Do.
		7991	−61	136	−37	63	48	1		
		7991	−56	141	−37	59	145	3		
		7986	−18	179	−28	27	97	1		
		7982	+46	243	−26	48	73	3		
		7992	+49	246	+20	55	48	1		
		7982	+52	249	−25	53	145	4		
		7980	+71	268	−19	72	121	1		
		7978	+74	271	+29	80	679	2		
		(6)		(197)	(−7)		1,429	20		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	h m		°	°	°	°				
Mar. 13	11 10	7991	−60	124	−40	63	73	3	G	U. S. Naval.
		7991	−58	126	−40	62	24	4		
		7991	−47	137	−38	52	61	1		
		7991	−43	141	−38	50	97	2		
		7986	− 6	178	−27	21	97	1		
		(*)	+58	242	−14	58	24	2		
		7982	+59	243	−26	60	145	1		
		7992	+61	245	+21	67	24	1		
		7982	+66	250	−25	66	315	4		
		7982	+77	261	−29	78	73	3		
		7980	+85	269	−19	85	121	1		
		(6)		(184)	(−7)		1,054	23		
14	11 16	7994	−87	84	−21	87	388	2	G	Do.
		7994	−82	89	−20	82	242	2		
		7991	−47	124	−41	55	48	6		
		7991	−33	138	−37	43	48	4		
		7991	−29	142	−37	40	97	1		
		7986	+5	176	−28	22	6	1		
		7986	+8	179	−27	23	97	1		
		7993	+19	190	+27	38	6	1		
		7982	+71	242	−25	72	170	1		
		7982	+80	251	−24	80	291	2		
		(5)		(171)	(−7)		1,393	21		
15	11 28	7994	−73	84	−20	74	339	6	F	Do.
		7994	−69	88	−19	70	218	4		
		7991	−35	122	−41	46	6	1		
		7991	−19	138	−37	35	48	5		
		7991	−16	141	−37	34	97	1		
		7986	+20	177	−27	27	97	1		
		7982	+85	242	−25	85	145	1		
		(4)		(157)	(−7)		950	19		
16	10 25	7996	−69	76	−27	69	48	3	G	Mt. Wilson.
		7995	−64	81	−9	64	12	1		
		7994	−58	87	−20	58	339	16		
		7994	−54	91	−19	54	97	2		
		7991	−7	138	−37	31	48	7		
		7991	−4	141	−38	32	109	2		
		7986	+34	179	−27	37	73	1		
		(9)		(145)	(−7)		726	32		
17	12 28	7999	−78	52	−15	78	6	1	G	Do.
		7998	−69	61	−17	69	6	1		
		7996	−57	73	−29	58	24	10		
		7996	−54	76	−29	57	73	1		
		7995	−49	81	−10	49	12	4		
		7994	−44	86	−20	45	291	24		
		7994	−38	92	−19	39	194	13		
		7991	−10	120	−40	34	36	18		
		7997	−7	123	+23	31	24	12		
		7997	−3	127	+21	28	36	3		
		7991	+7	137	−37	32	48	11		
		7991	+11	141	−38	33	61	3		
		7986	+48	178	−27	50	54	1		
		(8)		(130)	(−7)		865	102		
18	11 25	7999	−65	53	−15	65	6	2	F	Do.
		7998	−56	62	−17	56	6	2		
		7996	−42	76	−29	45	121	12		
		7995	−35	83	−10	35	36	9		
		7994	−30	88	−19	32	291	28		
		7994	−24	94	−20	26	97	27		
		7991	+1	119	−41	34	97	17		
		7997	+4	122	+22	29	48	16		
		7997	+7	125	+20	28	48	10		
		7991	+7	125	−39	33	48	2		
		7991	+20	138	−38	37	121	17		
		7986	+60	178	−27	61	48	1		
		(8)		(118)	(−7)		967	143		
20	10 27	(*)	−80	12	−18	80	12	1	F	U. S. Naval.
		7999	−39	53	−15	39	24	9		
		7999	−36	56	−14	37	73	8		
		7996	−20	72	−29	28	48	10		
		7996	−15	77	−28	27	73	11		
		7996	−13	79	−27	24	36	5		
		7994	−8	84	−20	15	24	7		
		7994	−2	90	−19	12	12	2		
		7994	+3	95	−18	12	73	12		
		7991	+30	122	−39	42	61	5		
		8000	+40	132	−16	40	12	5		
		8000	+42	134	−15	42	97	8		
		8000	+44	136	−16	44	73	5		
		7991	+48	140	−37	53	48	2		
		(6)		(92)	(−7)		666	90		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	h m		°	°	°	°				
Mar. 21	10 23	8002	−80	359	+23	83	242	2	F	U. S. Naval
		8002	−72	7	+22	75	582	1		
		(*)	−66	13	−18	66	12	2		
		8001	−33	46	+19	41	24	6		
		7999	−28	51	−15	30	48	10		
		7999	−25	54	−14	27	24	8		
		7999	−22	57	−13	23	73	6		
		7996	−8	71	−28	24	73	5		
		7996	−5	74	−28	22	12	1		
		7996	−2	77	−27	21	97	7		
		(*)	+5	84	−20	13	12	6		
		7994	+15	94	−19	19	97	12		
		7994	+17	96	−18	21	48	3		
		7991	+44	123	−39	51	36	2		
		8000	+52	131	−16	52	339	20		
		8000	+56	135	−16	56	388	22		
		7991	+61	140	−37	63	48	3		
		(9)		(79)	(−7)		2,155	116		
22	11 7	8002	−70	355	+25	76	194	2	G	Do.
		8002	−63	2	+24	70	145	4		
		8002	−59	6	+22	64	582	1		
		(*)	−53	12	−18	53	12	1		
		8001	−20	45	+19	32	97	6		
		7999	−16	49	−16	17	97	6		
		7999	−9	56	−13	11	97	4		
		7998	−1	64	−18	11	48	3		
		7996	+8	73	−28	23	24	4		
		7996	+12	77	−28	25	73	5		
		(*)	+18	83	−19	21	24	4		
		7994	+29	94	−19	31	48	3		
		7994	+31	96	−18	33	24	1		
		8000	+65	130	−17	65	485	4		
		8000	+72	137	−18	72	388	3		
		7991	+74	139	−37	74	24	1		
		8000	+83	148	−17	83	12	1		
		(10)		(65)	(−7)		2,374	53		
23	10 12	8002	−60	353	+25	67	315	8	F	Do.
		8002	−52	1	+24	57	145	5		
		8002	−45	8	+22	53	630	2		
		8001	−10	43	+18	27	24	1		
		8001	−5	48	+18	27	12	2		
		7999	−3	50	−15	9	24	2		
		7999	+5	58	−14	8	48	7		
		7998	+8	61	−17	13	12	1		
		7998	+12	65	−19	17	24	2		
		(*)	+19	72	−23	23	24	5		
		7996	+25	78	−29	32	48	3		
		(*)	+29	82	−20	31	6	2		
		(*)	+45	98	−19	46	12	3		
		8000	+78	131	−17	79	485	4		
		8000	+86	139	−18	86	388	2		
		(8)		(53)	(−7)		2,197	49		
24	13 31	8002	−46	352	+25	55	291	24	G	Mt. Wilson.
		8002	−41	357	+27	53	73	14		
		8002	−39	359	+24	50	73	25		
		8002	−30	8	+21	41	630	1		
		8001	+4	42	+18	27	12	3		
		8001	+9	47	+18	27	12	8		
		7999	+12	50	−16	15	48	17		
		7999	+20	58	−15	22	12	3		
		7998	+29	67	−19	31	12	2		
		7996	+40	78	−30	43	24	1		
		7994	+44	82	−22	45	6	6		
		(6)		(38)	(−7)		1,193	104		
25	9 50	8002	−33	353	+24	45	291	14	F	U. S. Naval.
		8002	−31	355	+21	41	12	1		
		8002	−19	7	+21	33	582	2		
		7999	+25	51	−16	26	36	2		
		7999	+33	59	−15	34	12	2		
		7996	+51	77	−30	54	24	1		
		7994	+57	83	−21	57	6	1		
		(4)		(26)	(−7)		963	23		
26	11 1	8002	−20	353	+24	38	218	9	F	Do.
		8002	−5	8	+21	29	558	1		
		7999	+48	61	−15	49	48	1		
		7996	+62	75	−30	63	12	1		
		(3)		(13)	(−7)		836	12		
27	11 12	8003	−86	273	−27	86	145	1	G	Do.
		8002	−12	347	+25	35	12	2		
		8002	−7	352	+25	34	291	13		
		8002	−5	354	+25	32	12	1		
		8002	+8	7	+21	29	558	1		
		7999	+61	60	−15	61	12	1		
		(3)		(359)	(−7)		1,030	19		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plate quality	Observatory
			Difference in longitude	Longitude	Latitude	Distance from center of disk				
1946	h m		°	°	°	°				
Mar. 28	10 55	8003	−83	263	−27	83	242	2	F	U. S. Naval
		(*)	−82	264	−18	82	97	1		
		8003	−75	271	−26	76	194	1		
		(*)	−70	276	−14	70	24	1		
		8002	+6	352	+25	33	267	9		
		8002	+22	8	+21	36	558	1		
		(4)		(346)	(−7)		1,382	15		
31	11 14	(*)	−60	246	−23	60	194	1	F	Do.
		(*)	−57	249	−27	58	24	3		
		(*)	−49	257	+32	60	170	7		
		8003	−47	259	−29	50	12	1		
		(*)	−44	262	+27	54	206	1		
		8003	−42	264	−27	45	194	4		
		(*)	−41	265	−18	42	61	1		
		(*)	−40	266	+27	52	145	9		
		(*)	−35	271	−26	38	145	1		
		8002	+46	352	+23	55	97	1		
		8002	+62	8	+21	68	485	1		
		(8)		(306)	(−7)		1,733	30		

Mean daily area for 28 days=1,762

Mean 10 g+s for 28 days=118.1

*Not numbered.
VG=very good; G=good; F=fair; P=poor.
g=number of groups; s=number of spots.

NOTE.—Mount Wilson charts not available for March 19, 20, 21, 22, 28, 29, 30, 31.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR MARCH 1946

[Based on observations at Zurich except as indicated by an asterisk. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland]

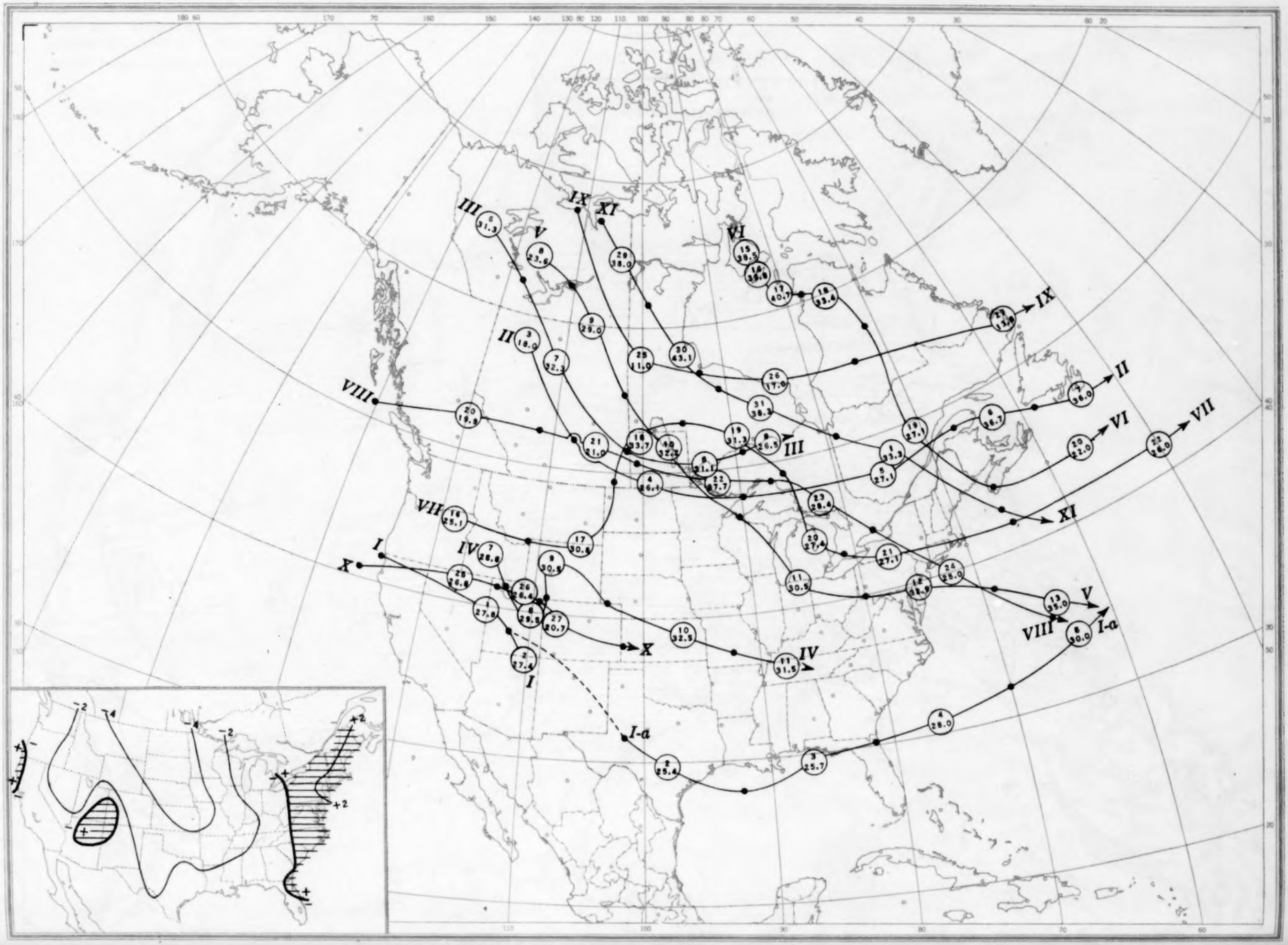
March 1946	Relative numbers	March 1946	Relative numbers	March 1946	Relative numbers
1	96	11	67	21	101
2	83	12	71	22	97
3	71	13	57	23	109
4	92	14	50	24	64
5	98	15	52	25	55
6	88	16	49	26	57
7	65	17	59	27	49
8	71	18	87	28	60
9	65	19	106	29	60
10	78	20	96	30	87
				31	94

Mean, 31 days=75.3

Chart I.—Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, March 1946

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, March 1946

Chart II. Tracks of Centers of Anticyclones, March 1946. (Inset) Departure of Monthly Mean Pressure from Normal

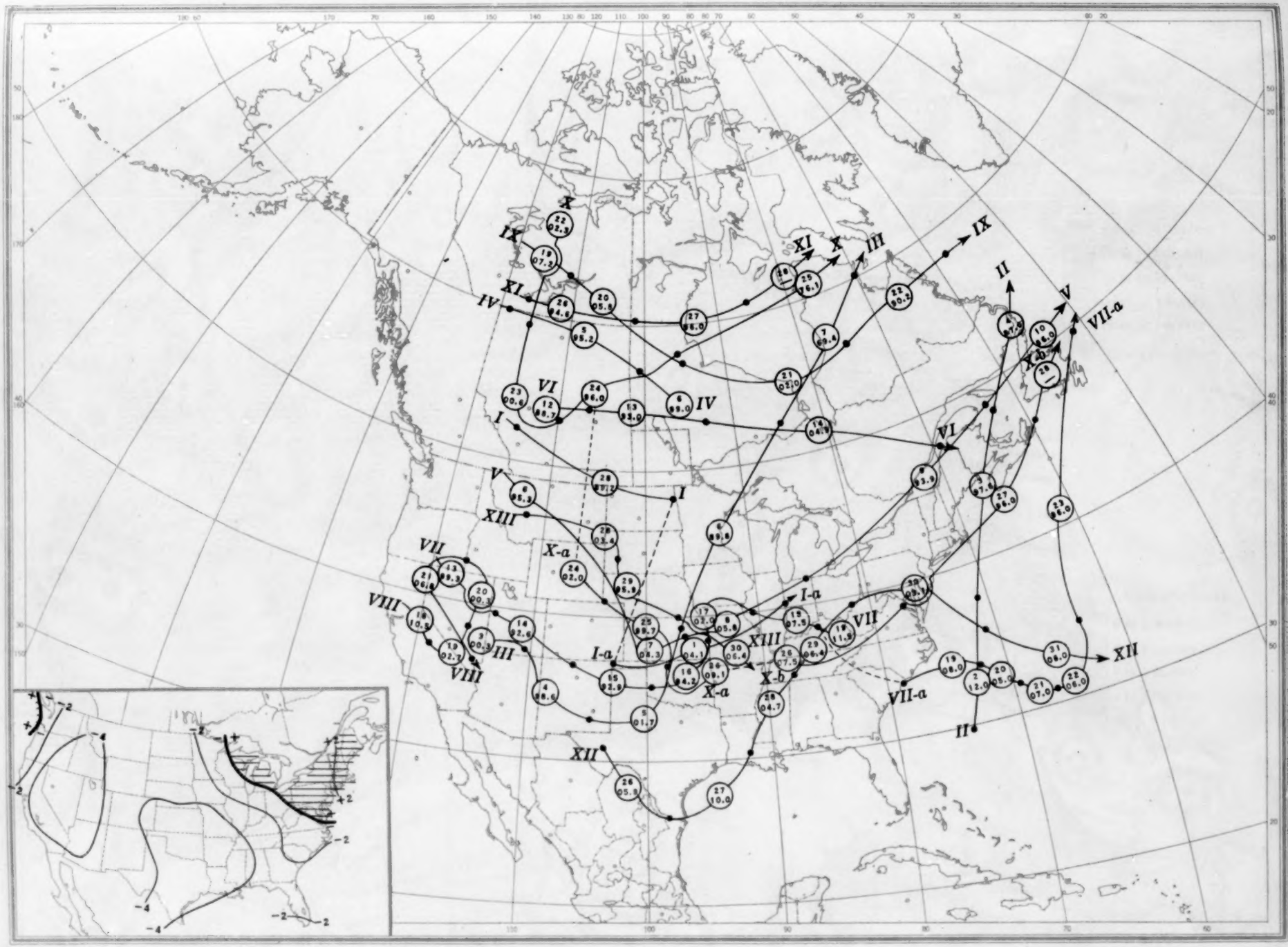


Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Chart III. Tracks of Centers of Cyclones, March 1946. (Inset) Change in Mean Pressure from Preceding Month

Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Chart III. Tracks of Centers of Cyclones, March 1946. (Inset) Change in Mean Pressure from Preceding Month



Circle indicates position of cyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of cyclone at 7:30 p. m. (75th meridian time)

Chart IV. Percentage of Clear Sky Between Sunrise and Sunset, March 1946

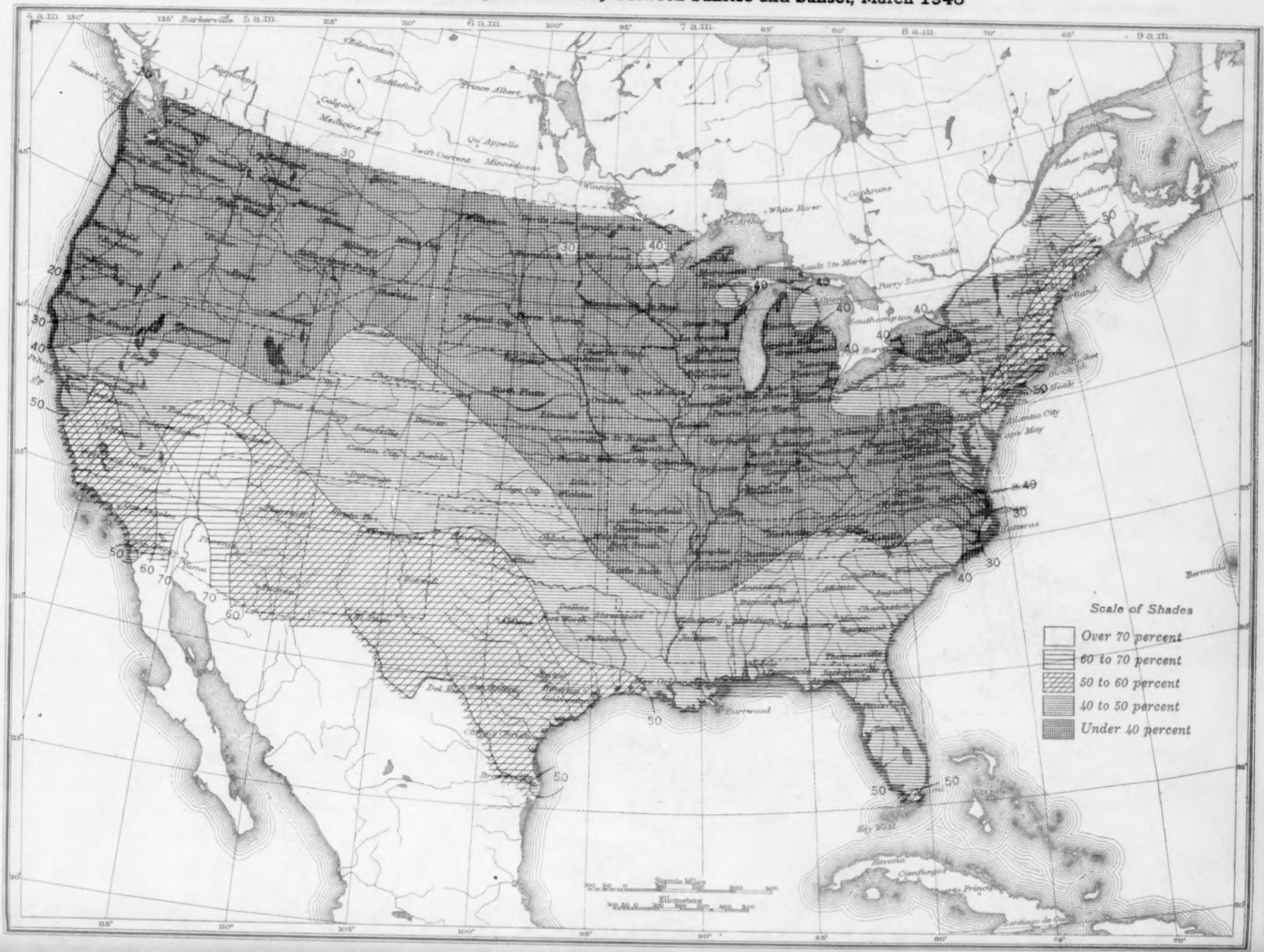


Chart V. Total Precipitation, Inches, March 1946. (Inset) Departure of Precipitation from Normal

Chart V. Total Precipitation, Inches, March 1946. (Inset) Departure of Precipitation from Normal

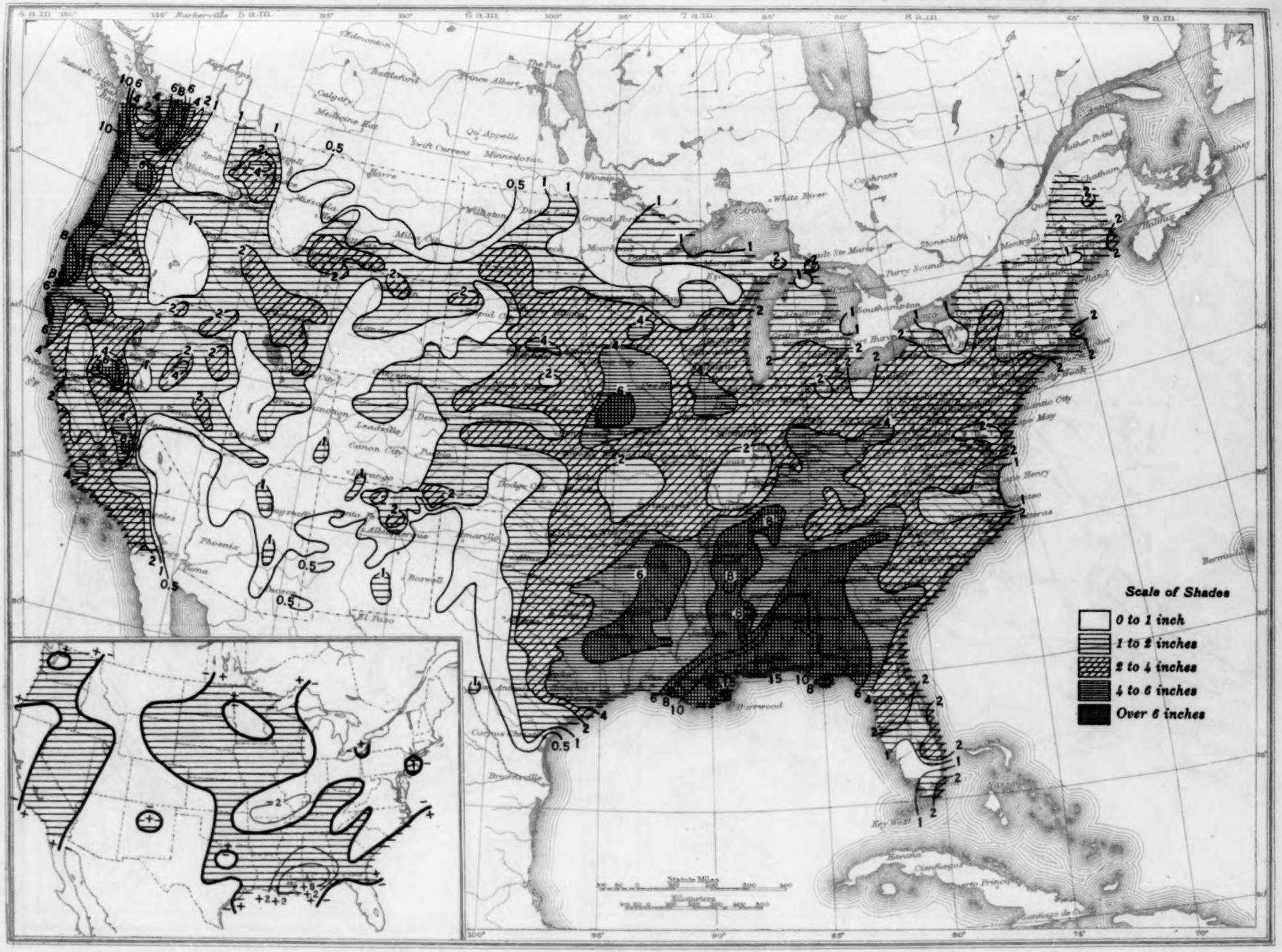


Chart VI. Isobars (mb), at Sea Level and Isotherms (°F.) at Surface; Prevailing Winds, March 1946

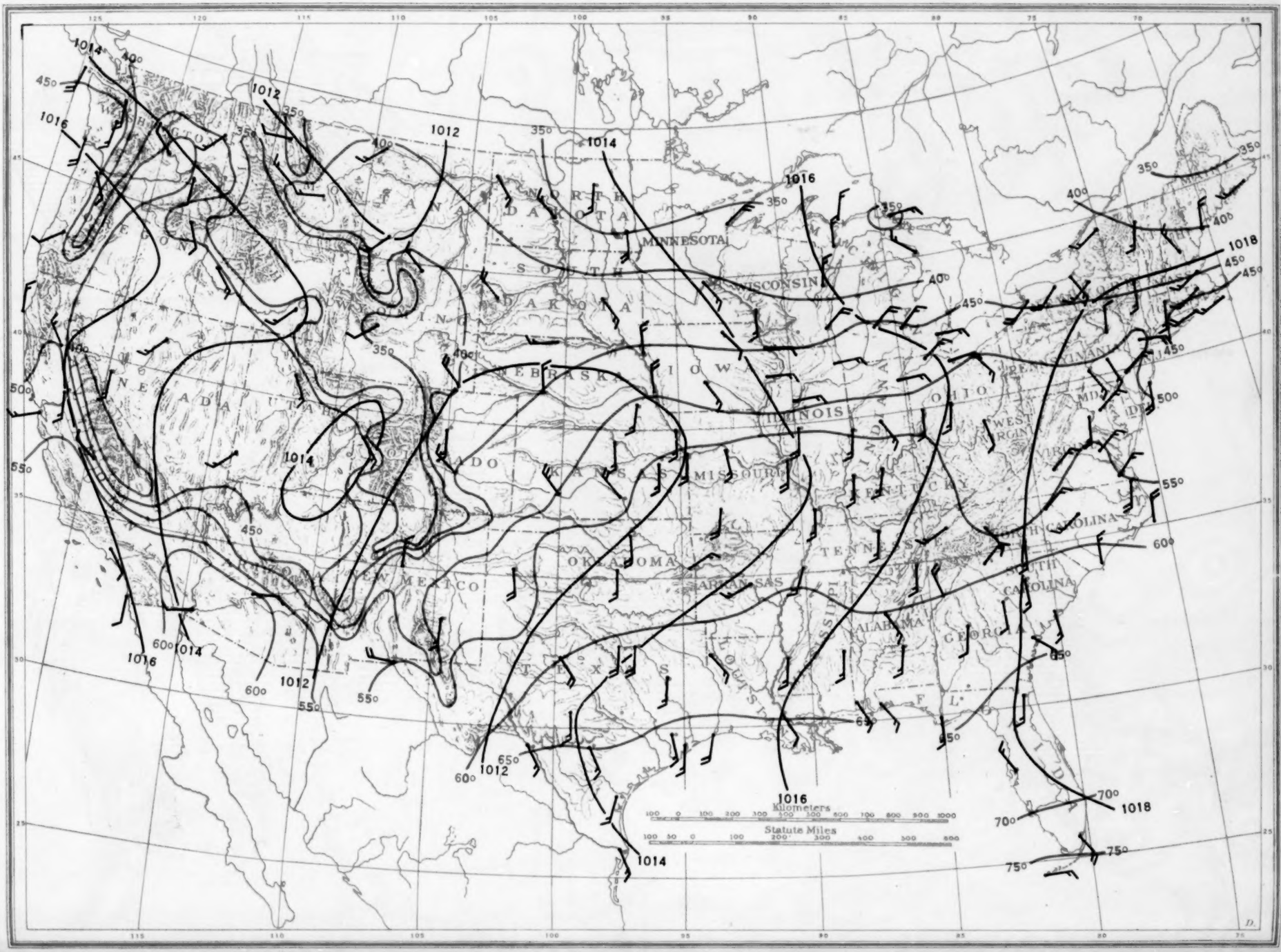


Chart VII. Total Snowfall, Inches, March 1946. (Inset) Depth of Snow on the Ground at 7:30 p. m., Monday, March 29, 1946

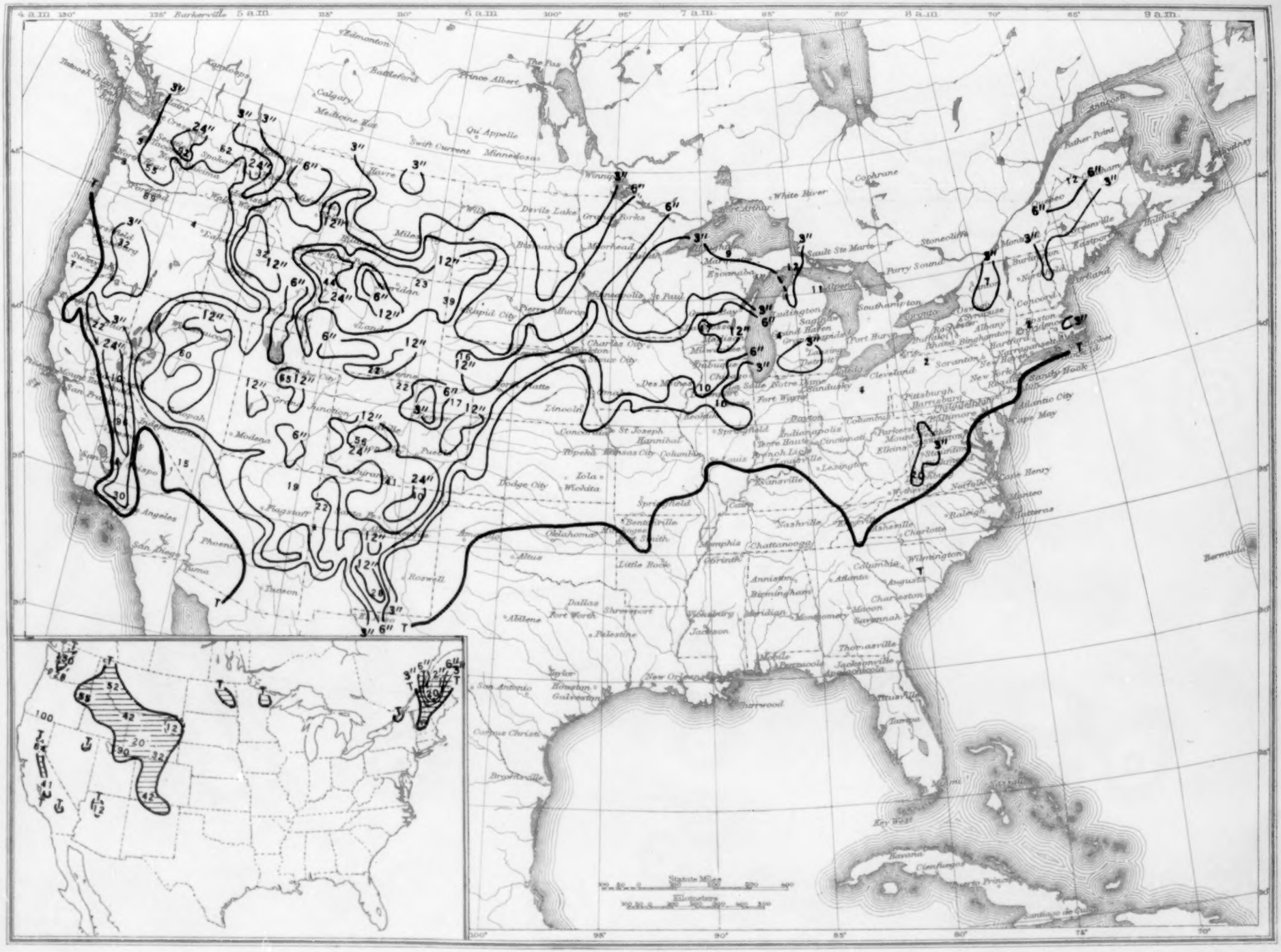


Chart VIII, March 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in

Chart VIII, March 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 850-millibar Pressure Surface, and Resultant Winds at 1,500 Meters (m.s.l.)

Contour lines and isotherms based on radiosonde observations at 0300 G.C.T. and winds based on pilot balloon observations at 1000 G.C.T.

Chart IX, March 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 700–millibar Pressure Surface, and Resultant Winds at 3,000 Meters (m.s.l.)

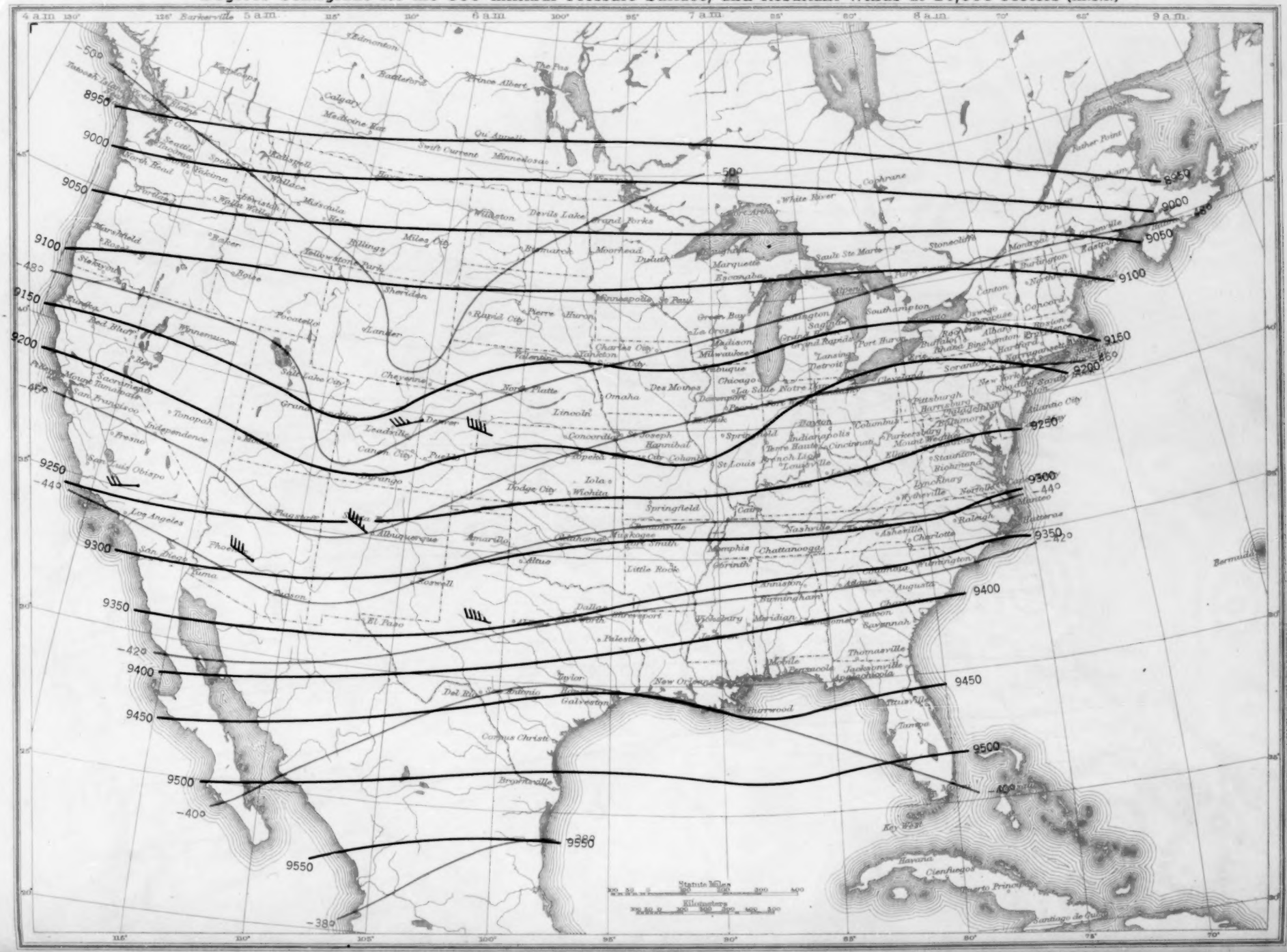
Contour lines and isotherms based on radiosonde observations at 0300 G.C.T. and winds based on pilot balloon observations at 1000 G.C.T.

Chart X, March 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 500–millibar Pressure Surface, and Resultant Winds at 5,000 Meters (m.s.l.)

Contour lines and isotherms based on radiosonde observations at 0300 G.C.T. and winds based on pilot balloon observations at 1000 G.C.T.

Chart X, March 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 500–millibar Pressure Surface, and Resultant Winds at 5,000 Meters (m.s.l.)

Chart XI, March 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 300–millibar Pressure Surface, and Resultant Winds at 10,000 Meters (m.s.l.)



Contour lines and isotherms based on radiosonde observations at 0300 G.C.T. and winds based on pilot balloon observations at 1000 G.C.T.